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NINETEENTH CENTURY.

, Esq. F.R.S.
&c., CORRESP.

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THE

PROGRESS

OF

THE NATION,

IN ITS VARIOUS

Social and Economical Relations,

FROM THE BEGINNING OF THE NINETEENTH CENTURY.

BY

G. R. PORTER, Esq. F.R.S.

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PREFACE

TO THE

SECOND EDITION.

A BOOK which professes to mark the progress of this United Kingdom, in which all the elements of improvement are working with incessant and increasing energy, requires to be from time to time brought under revision, in order to the proper fulfilment of the object which it so professes.

It has been said, that any work which should faithfully record the onward progress of England, must partake of the nature of a *periodical*, so great are the changes which occur, and so rapidly are they found to succeed each other. This remark may be applied with peculiar propriety to the present time, in which the most zealous advocates of progress may see their hopes outstripped, and their most sanguine wishes brought within the reach of accomplishment.

Being called upon, twelve months ago, to prepare a new edition of this work, I have been made sensibly to feel the truth of these remarks. To render the volume in any degree worthy of acceptance on the part of the public, it has been necessary to revise the whole, and to bring down the information which it gives to the latest practicable period of time. This has proved a work of much labour, and required for its speedy accomplishment a greater portion of time than could be taken from the performance of other and more onerous duties. During the year in which I have been thus engaged, and in which these sheets have been passing through the press, changes

of the most momentous character, affecting our commercial relations, have been crowned with legislative sanction. The protective system, which only a few years ago appeared to be so interwoven with all our habits and interests, that any man who should venture to raise his voice against it was stigmatised as a visionary and a theorist, has suddenly yielded to the force of argument, and is abandoned by every one having valid pretensions to guide the opinions or to govern the decisions of the legislature.

If this sudden change could have been foreseen, some of the arguments might possibly have been spared that appear in the following pages, and that were levelled against positions which, at the time, were by most persons deemed impregnable, but which are now and for ever given up as no longer tenable; for it is not to be conceived that a victory so signal over deep-rooted prejudices, and which has been gained by changing the convictions of the great majority of those by whom they were entertained, can ever be reversed, nor that circumstances can hereafter arise to call for a repetition of the means by which that victory has been achieved.

Since the first appearance of this work, the fifth decennial enumeration of the population has been completed, and if no other indication of the prosperity of the country were to exist, we might justify our assertion of that prosperity, by the simple fact, that our numbers have increased from 16,338,102, in 1801, to 27,041,031, in 1841, or 65½ per cent., being 1¼ per cent. per annum. This rate of increase could assuredly not have been maintained without a concurrent increase in the powers of production. The extent to which our progress in this respect has been carried, is strikingly seen in continually increasing harvests, raised for provisioning the people, and which are the result of progressive applications of capital to the land. Great as has been the effect thus produced, there is reason for believing that we shall see far greater results from the same cause in future years. When our agriculturists shall have been made to feel that their chief dependence for prosperity must be upon their own skill and industry, they will find that, like their fellow-subjects employed in trading and manufacturing

pursuits, they too are able successfully to compete with those engaged in the same pursuit with themselves in other lands. It would, indeed, be difficult to show why, when an equal degree of skill and energy, and a greater amount of capital are employed in the *manufacture* of wheat, our farmers should not be able to undersell the foreigner, as we now are able to undersell him in manufactures of cotton and hardwares. This question must shortly now be put to the proof, and I, for one, have no misgivings as to the result.

It was felt, that when legislative protection should be withdrawn from the cultivators of land, it could not long be continued to any other class of producers. Some few branches of industry are still, although in a modified degree, subjected to this "bane." The progress of improvement in our silk manufacture is still impeded by a protecting duty of 15 per cent., laid upon foreign productions, and our tariff continues to present some other deformities, although more has been done in the removal of such during the past few years, than could reasonably have been hoped. Among the most important of these reforms, is one which has been adopted by the legislature since the last of the following pages passed through the press. The producers of sugar in our colonies and dependencies, are no longer secured in the possession of a home market closed against foreign rivals, and will be forced in a very few years to compete with these on equal terms. As might have been expected, the cry of ruin has been loudly raised by our colonists against this measure of justice to the consumer, yet it may be safely predicted, that they will manage to withstand the shock, and by the adoption of more scientific and economical processes in the cultivation of their plantations, and the manufacture of their products, will be able to meet, on equal terms, the slave-grown produce of Cuba and Brazil. A very significant fact in support of this prediction, is seen in the subsequent formation of joint-stock associations for the production of sugar, in our intertropical dependencies, promoted by men practically acquainted with the subject, and who expect, by the application of adequate capital and the substitution of machinery and skilled labour for a part of the mere animal drudgery hitherto employed, to establish such a degree of economy in their pro-

cesses, as will enable them to undersell in the markets of Europe, the rivals so much dreaded by the old race of planters, many of whom have neither capital nor mental resources adequate to the conflict.

This important reform redounds much to the credit of an administration whose advent to power was occasioned by the boldness of their predecessors in dealing with other monopolies, and thus bringing upon themselves the political hostility of those whom they had successfully combated. Fearless as the late Government were in striving against the prejudices of the large and powerful class who believed themselves benefited by the corn-laws, they yet avoided an encounter with colonial interests, strengthened, as these were sure to be, by the honest but most mistaken prejudices of the Anti-Slavery Association and its numerous supporters. Without any apparent sacrifice of principle, a change in our sugar duties might have been postponed to a future session, and perhaps to a future Parliament. A bolder and a wiser course was chosen. Relying upon a principle, which had already been successfully carried out in dealing with our external corn-trade, the newly-appointed Government lost no time in testifying to its firmness and sincerity by placing in a course of speedy adjustment a question which, by a more timid policy, would assuredly have been compromised; but which, thus manfully undertaken, passed through the Legislature with scarcely more than a mere semblance of opposition. The corn duties and the sugar duties being thus disposed of in a manner fatal to the continuance of monopolies, it may now be looked upon as certain, that the principle contended for in the following pages—that of not imposing any Customs' duties, except for the purpose of obtaining revenue—must, ere long, be universally acted upon by Parliament. When this shall be done, the effect upon our foreign commerce, and, therefore, upon the sum of our comforts and conveniences, must needs be great and beneficial. Our imports being increased of such articles as we can buy more cheaply than we can produce them, a greater amount of capital will be disposable for the production of such other articles as we can make more cheaply than we can buy them, and which will then be exported in pay-

ment for our increased purchases. By this means labour will be economised and rendered more effective; so that we shall obtain an equal amount of comforts and conveniences with a lessened application of labour, or, what is better, shall command a greater amount of them through an equal expenditure of toil.

Great as are the reforms that since the first appearance of this work have been adopted in our commercial legislature, it is not to these alone that we must look for proofs of progress. A great and growing interest has been evinced during the past ten years in all that relates to the moral condition of society in this country; which direction of the public mind has contributed in a very great degree to the attainment of that measure of success which has attended the efforts made for bettering the physical condition of the labouring class. The fact that crime is, to a great extent, a consequent of indigence, was urged with effect by a late Minister of the Crown in favour of relaxations in our fiscal system, as affording means whereby that indigence might be modified or removed; and the testimony of our criminal returns has stood in proof of this position. It has further been demonstrated, that the effect of want in leading to criminality is greatly aggravated by ignorance, which in itself is a great cause of want; and from these considerations the minds and hearts of the ruling class have, at length, been awakened to the duty and the necessity of making provision for the education of the people.

A strong proof of what is here advanced may be seen in the address written by the First Minister of the Crown when recently he offered himself for re-election as representative for the city of London. In former times, and on such occasions, we have always seen prominently brought forward points of sectional interests and matters of party difference, as grounds for soliciting suffrages; and it should afford matter for the greatest satisfaction that recourse must now be had to higher and nobler motives on the part of those to whom the great task of Government is confided. In his address of last July to the citizens of London, Lord John Russell thus calls attention to matters in the furtherance of which all are concerned, and as to which none can pretend

to have any peculiar interest:—"Great social improvements are required: public education is lamentably imperfect; the treatment of criminals is a problem yet undecided; the sanitary condition of our towns and villages has been grossly neglected. Our recent discussions have laid bare the misery, the discontent, and outrages of Ireland: they are too clearly authenticated to be denied; too extensive to be treated by any but the most comprehensive measures. Should you again elect me your member, it will be my duty to consider all these important matters in conjunction with those whom Her Majesty shall be pleased to call to her councils."

In the front rank of this array of subjects stands the imperfection of public education. Nor should it excite surprise to find the importance of this matter so fully recognised by one who, through a somewhat lengthened public career, has never ceased to give the sanction of his name and character, and the benefit of his strenuous exertions, to promote the enlightenment of the people. The consistency of conduct thus evinced, and the pledge so emphatically and so recently offered for its continuance, should give the greatest hopes to those who have laboured in the same cause, that the Minister will be found boldly and worthily to complete that which, as a private citizen, he so laboured to accomplish.

Nor are the sanguine hopes of the advocates for national education bounded by their reliance upon the declarations and implied engagements of men in power. The plan brought forward by the Government in 1839, for placing under the control of a Committee of the Privy Council the expenditure of the money voted by Parliament for the promotion of education, was all but defeated in the House of Commons; while, in the House of Lords, an adverse address to the Throne, proposed by the Primate of all England, supported by other eminent prelates, and enforced by the head of the Conservative party, was carried by an overwhelming majority. If on that occasion the opposition had proved successful, and power had passed into other hands, as the result of the hindrance given to this plan, there is reason to fear that the reign of ignorance in this country might have been

indefinitely prolonged. All honour to the men who, supported by their convictions, when in pursuit of that which they held to be right and just, disregarded the powerful array brought against them, and persevered in their objects. At a future time, but upon other grounds, the Government was more successfully opposed; and those who but two years before would have negatived the course proposed for promoting national education, quietly and honestly applied themselves to carry it forward. They had, doubtless, in the interval, been brought to reconsider their opinions, and to understand how deeply the public conviction was engaged on behalf of this all-important question. That conviction has since been strengthened; so that we may now feel assured that the cause of enlightenment is, humanly speaking, placed beyond reach of injury from the conflicts of party. That all obstacles will now be withdrawn from the extension of public education in this country, and to its being conducted upon principles of justice, separating it from all sectarian objects, and giving to it a truly national character, is more than we can expect; but with the experience of the last few years, showing that in the furtherance of a good cause, firmness offers the surest promise of success, we may confidently predict that the measures to be brought forward for rendering public education less "lamentably imperfect" than it now is, will be such as to satisfy the minds of all who see the necessity for such a course, and that they will be so supported as to ensure their adoption by the Legislature.

G. R. P.

London,
30 *November*, 1846.

PREFACE

TO THE

THIRD EDITION.

The call for another edition of this volume enables me again to appear before the public with a detail of the further progress of the United Kingdom.

The tables by which that progress is shown in the following pages are mostly brought down to the end of 1849, and—so far as time has hitherto permitted—will be seen to bear out to their full extent the most sanguine expectations of those who expected good from the changes which have of late years been adopted in our commercial policy.

The *experiment* of protection, so long persisted in, has at length been wholly abandoned in principle, and to a great degree in practice also, by the Legislature, a change which has been received by the great bulk of the community in a spirit which must serve to convince every one of the hopelessness of any effort to reimpose the shackles which were so long placed upon the industry of the nation. The evidences of general prosperity brought forward in the following pages, are indeed as clear and conclusive in favour of a free-trade policy as any of its warmest advocates could have hoped to witness; and it is not therefore too much to expect, that the light thus thrown upon the subject will lead to the early abandonment of all remaining vestiges of restriction imposed under mistaken views by our ancestors, while these evidences of our prosperity may have the further good effect of leading

foreign Governments to follow a course thus recommended by its results to their adoption.

In one important branch of international intercourse, the convictions of the community upon the subject of free-trade have outrun, in point of time, the expectations of its partisans. Our Navigation Law, dating from the time of the Commonwealth, and regarded by successive generations as a monument of human wisdom, had indeed, at various times since the year 1822, been subjected to modifications, some of which were of an important character; but up to the time when a Committee of the House of Commons was appointed, in 1847, to inquire into its policy and operation, few persons had been sanguine enough to hope for its entire removal from the Statute-book. The light thrown upon the subject by witnesses examined before that Committee, and before a Committee of the House of Lords, appointed with the same object in the following year, served to show how void of all real advantage to the trading interests of the country were the remaining restrictions imposed by that long-cherished law, and has led to its speedy abandonment. On the 1st day of January, 1850, it ceased to be illegal to bring to our shores for consumption, from European ports, such produce of the other three quarters of the globe as we might require; and our merchants are now empowered to convey their property in the ships of any country to and from any part of the world, as well as to buy their ships wherever they are to be had best and cheapest.

Among the results of this measure, not the least valuable is this, that it has served to convince foreign Governments that our previous commercial reforms were adopted by us in good faith, and with full confidence in their wisdom. Already this conviction has produced considerable effects. The Dutch, against whose naval power our Navigation Law was originally and chiefly directed, have hastened to place their system in agreement with our own, and other less formidable rivals have promptly followed their example. The Navigation Law of the United States was adopted simply as a measure of retaliation against this country, and has naturally and necessarily conformed itself to our change of system. Other States, which had not adopted our

rule of restriction against foreign shipping, have been led by our recent legislation on the subject, to forego the intention they had plainly intimated of following that rule, and thus, a most undoubted injury to our shipping interest has been averted.

Another, and a permanent benefit to commerce, has been gained by the repeal of a law which, by giving a fancied security to our ship-owners against the competition of foreigners, took away from them the strongest incentive to exertion, and to the adoption of measures of economy, as well in the management of their business as in the construction of their ships. In this last-named particular, a great saving may now be made by them in some of our chief ship-building ports, upon the cost of vessels built during the period of restriction; and it is not hazarding much to predict, that by these means, and through the operation of some recent measures for improving the character and condition of the masters and officers to whose care their property is intrusted, the shipping interest of England will at least retain that pre-eminence over the commercial marine of all other countries which it has hitherto enjoyed.

In the spring of the year upon which we have now entered, a sixth decennary enumeration of the population of the United Kingdom will be made. So soon thereafter as the result can be known, it is proposed to issue a supplement to this volume, giving the numbers ascertained, accompanied by remarks and calculations upon the subject, corresponding with those which have already been offered in relation to each previous census.

G. R. P.

London,
1 *January*, 1851.

THE

PROGRESS OF THE NATION.

INTRODUCTION.

It must, at all times, be matter of great interest and utility to ascertain the means by which any community has attained to eminence among nations. To inquire into the progress of circumstances which have given pre-eminence to one's own country would almost seem to be a duty. If this remark may be applied with propriety to any people and to any age, assuredly it may be so applied to this country and to the present generation, by which have been made the greatest advances in civilization that can be found recorded in the annals of mankind.

The task here pointed out has usually been left to be executed by the historian, writing in some age subsequent to that embraced in his inquiries, and it has been urged in support of this practice, that it is only after events have been cleared from the mists in which they are too commonly enveloped by party feelings or personal interests, that a sober and dispassionate estimate can be formed of their importance and tendency. To a certain extent, and within some limitations, this opinion is doubtless well founded, and if the inquiry which it is proposed to pursue in the following pages were connected with party feelings or opinions, or if the results were made to rest for confirmation upon deductions drawn from abstruse or fanciful theories, very little practical utility could be expected to attend the task. Such, however, is not the intention of this work, nor are such the means by which its object is proposed to be accomplished.

To point out the progress of the nation,—not of this or that section of its inhabitants, but the progress of the whole social system in all its various departments, and as affecting all its various interests,—is the object proposed, while the means employed for its accomplishment have, as far as possible, been sought for in well-authenticated facts, and the conclusions which these suggest are supported by principles, the truth of which has in general been recognised.

Many circumstances concur in pointing out the advantage of adopting the commencement of the present century as the point of time whence to begin the inquiries thus set on foot.

This limitation has been principally influenced by the fact of the legislative union between Great Britain and Ireland having taken effect from the first day of the century; an event by which the different divisions of the United Kingdom were first brought under one uniform system of government, so far at least as to enable writers upon public economy to consider the two islands as one country, each being thenceforth necessarily and immediately affected by the situation and progress of the other.

Another motive, which has had considerable weight in thus limiting the period of inquiry, will be found in the fact, that the materials which can be brought in aid of a labour of this kind, and which relate to the occurrences of the present century, are vastly superior in amount and value to those that are to be collected from any existing records of earlier date. In support of this assertion, it will be sufficient to mention the decennary enumerations of the population, the earliest of which, as regards Great Britain, was made in 1801. These returns have supplied an amount of information far greater than any before possessed, upon a subject the consideration of which enters more or less into every question connected with national affairs.

If the foregoing circumstances had not been sufficient to determine the propriety of thus limiting the proposed inquiries in point of time, the fact that one-third of the period chosen was passed in a state of war, while in the other two-thirds this country has enjoyed profound peace, would equally have led to the adoption of that limit as affording

an opportunity for making a comparison between the tendency of such opposite conditions of social existence to promote or retard the progress of society in its various relations, whether commercial, financial, political, or moral.

It is proposed, then, to consider what has been the progress of the nation from the commencement of the nineteenth century, under eight general heads of inquiry. These are—

1. Population.
2. Production—agricultural and manufacturing.
3. Interchange; including internal communication and trade, external communication and commerce, currency, wages, &c.
4. Public revenue and expenditure.
5. Consumption; under which head will be considered the expenditure of individuals for their personal enjoyment, and of societies or combinations of individuals for promoting the general convenience, as well as the quantities and value of commodities consumed.
6. Accumulation—as shown by the increase of national works and buildings, of commercial and agricultural stock, and of articles which minister to the comfort and convenience of individuals.
7. Moral progress; exhibiting the state of the kingdom in regard to crime, its amount, prevention, and punishment, and the progress of education.
8. The extent and condition of our Colonies and foreign dependencies.

Towards the illustration of these various points, parliamentary and other official records have been used as far as practicable, and these records fortunately are sufficient in number, extent, and variety, to afford data upon nearly all the subjects embraced. The extensive inquiries that have been instituted from year to year by the Imperial Parliament, upon almost every branch of the national interests, have made available to our purpose an amount of testimony drawn from the most intelligent and experienced quarters, such as no other country or government in the world has ever brought together. Individual mem-

bers of the legislature have likewise been accustomed to call upon our public departments for the production of various details, with the view of elucidating all matters that in any way affect either the interests of particular classes of their constituents, or those of the community at large. And, recently, the executive government has established a department for the collection and systematic arrangement of information for the use of the legislature and the public, which has been instrumental in bringing to light and classifying a considerable amount of information upon nearly every topic that is connected with the apparent condition of society.

These various channels of information have been diligently explored, and freely used, wherever they could be made available to the purpose in view; nor has recourse been had to any less conclusive testimony, except where official records are wanting, or for the purpose of corroborating those records in cases where they might seem to call for confirmation.

SECTION I.

POPULATION.

CHAPTER I.

Uncertainty of information previous to present century—Summary of Population in Great Britain, 1801, 1811, 1821, 1831, and 1841—In Ireland, 1821, 1831, and 1841—Rate of increase—Proportion of Males and Females—Population of England and Wales during the 18th century—Ages of Population, 1821 and 1841—Population of France, and rate of its increase—Births, Deaths, and Marriages, in England and Wales—In various countries—Mortality of young persons—Mortality in the Metropolis—In Manchester—In Middlesex—In England and Wales—Mortality with reference to ages in England—In Ireland—Baptisms, Burials, and Marriages in England, 1801-1849—Proportions in different Counties—Mortality in Tavistock, 1779-1836.

The information that existed respecting the numbers of the inhabitants of this country was exceedingly vague and imperfect up to the end of the 18th century. Till then, indeed, all knowledge upon the subject of our population was little more than conjecture. In the course of the 17th century the value of correct information upon this interesting head of inquiry began to be felt and acknowledged, and in the following century attempts were made to deduce the increase, or otherwise, of the population from the difference between the births and burials which had occurred in each decennary period, commencing from the year 1700. It is clear that this plan alone, even if followed with absolute accuracy, could not at any time be relied on for exhibiting the actual numbers of the people, since one chief element of the computation, the number of people existing at the date from which the computation commenced, was unascertained. But it is well known, also, that a considerable portion of the people in England have never been accustomed to avail themselves of the system of voluntary registration of their children. Hence computations from such materials could be considered as approximations only towards the establishment of data upon this leading branch of social economy.

Previous to the census of 1801, there existed no *official* returns of

the population of either England or Scotland, and the earliest enumeration in Ireland took place in 1813. The answers obtained under the Population Acts which have been put in force during the present century, have, however, rescued the question of the amount of our population from the obscurity in which it was previously involved, and have furnished data of the most valuable kind as the ground-work for various political calculations.

The accuracy of the enumeration of the people which was made in 1801 was at first impugned by several writers; but although it is probable that in this first attempt to perform an arduous operation some errors would be committed, we are warranted, by the result of subsequent enumerations, in believing that the census of 1801 was not far from correct. The presumption, indeed, would be that any errors that might have been made would be errors of omission, whereas the objections all went to charge the enumeration with inaccuracy in an opposite direction. The agreement that has been established by subsequent enumerations in the progressive rates of increase during successive decennary periods affords the best evidence of which the subject is capable in favour of the general accuracy of the first account.

In noticing the controversy here alluded to, Mr. Rickman gives the following explanation in the preface to his Abstract of the Answers and Returns made under the Act of 1831:—

"Throughout England and Wales the questions were issued to the 'Overseers of the Poor' (an office established in the year 1752, and too well known for explanation to Englishmen), in the administration of which office these overseers are bound to relieve, at the expense of their several parishes or townships, all the poor who can substantiate their claim to such relief. A considerable scarcity had occurred in the year 1795-6, and this was aggravated almost to famine in the year 1800-1; that is to say, the defective harvest of 1800 raised the price of wheat to 110*s.* per quarter, whereas the average price of the preceding ten years had been 54*s.* per quarter. The poor, therefore, applied in augmented numbers to the overseers, and as relief was usually afforded according to the number of children maintainable by each applicant, the overseers could not fail to be informed of the full number of every family, infants included, in March, 1801 (the time when the Enumeration Act of 1800 was carried into effect); and in parishes not unusually large, were almost able to state the population from their personal knowledge—certainly able to detect any attempt at falsehood in answering the inquiry made by themselves, from house to house; while in families above the necessity of applying for relief, the number of children and servants is too well known to be falsified with success, did any conceivable temptation exist for misrepresentation. Add to

this, that the overseers acted under the obligation of an oath to make returns according to the best of their knowledge and belief, and that in most cases there are two or more overseers in each parish who must be presumed to concur in wilful falsehood, before the truth of their returns can be fairly questioned. It is almost needless to add, that the expense of relieving the poor in England and Wales, which in the year 1800 approached the sum of four millions sterling, had become six millions in 1811, and exceeded that sum in 1821; and in the year ending March, 1831 (ten weeks before the enumeration took place), the relief of the poor had amounted to 6,800,000*l.*, so that the overseers of the poor have had but too much reason to exercise habitual vigilance as to the number of the children ever since the Population Acts became decennial.

"The poor laws of Scotland are not in such active operation as to require the appointment of special officers; but the machinery for the execution of the Population Act has been usually deemed more perfect there than in England, inasmuch as it is committed to the care of the official schoolmaster of each parish, an institution peculiar to Scotland, which has existed in full vigour since the year 1696; and as the office of precentor and clerk of the parochial session for poor relief is often combined with that of schoolmaster, the personal knowledge of the number of children in every family appertains to the schoolmaster in Scotland almost as effectually as to the overseer in England;* and the habit of regularity, together with the official knowledge of writing and arithmetic, implied in the character of schoolmaster, renders the population returns of Scotland quite as authentic, and obviously more methodical, than those obtained from the overseers of the poor in England."

The general accuracy of the population returns in Great Britain may thus be said to be placed beyond reasonable doubt; so that calculations founded upon and fairly deduced from those returns may be received with confidence as evidence upon all those branches of inquiry which are capable of being elucidated by them.

The following table exhibits a summary of the numbers of inhabitants in the counties of England, Wales, and Scotland, respectively, with the number of men employed in the army, navy, and commercial marine, at each of the five enumerations that have been made during the present century, showing the actual per centage increase that has occurred in each decennary period.

* Considering the very small number of the families, or rather of the individuals (for a whole family is seldom or never so supported), who receive relief from the parochial session in most of the Scottish parishes, no peculiar opportunities of knowing the numbers of the people can be attributed to the schoolmaster from the circumstance of his filling the office of session-clerk.

	1801	1811		1821	
	Number	Number.	Increase per Cent.	Number.	Increase per Cent.
England	8,331,434	9,538,827	14·50	11,261,437	18·05
Wales	541,546	611,788	12·97	717,438	17·27
Scotland	1,599,068	1,805,688	12·92	2,093,456	15·93
Army, Navy, &c.	470,598	640,500	..	319,300	..
Great Britain	10,942,646	12,596,803	15·11	14,391,631	14·12
Females	5,492,354	6,269,650	14·15	7,254,613	15·71

	1831		1841	
	Number.	Increase per Cent.	Number.	Increase per Cent.
England	13,091,005	16·24	15,000,154	14·58
Wales	806,182	12·36	911,603	13·07
Scotland	2,365,114	13·	2,620,184	10·78
Army, Navy, &c.	277,017	..	188,453	..
Great Britain	16,539,318	14·91	18,720,394	13·18
Females	8,375,780	15·45	9,515,824	13·61

It would appear from these figures, that although the positive increase of numbers was in a trifling degree greater in 1841 as compared with 1831, than it was in 1831 as compared with 1821, the per centage rate of increase has been less, it having been 13·18 in the latest period against 14·91 in the preceding ten years. There are good grounds for believing that this comparative falling off in the rate of increase is not the result of any cause directly influencing the statistics of vitality; that it does not proceed from a diminished proportion of births on the one hand, nor from an increased proportion of deaths on the other, but has been occasioned by an extension of emigration. It is not possible to state with perfect accuracy the number of persons who thus leave this kingdom to settle in British colonies and foreign countries. The Custom-house accounts, and the records of the Commissioners for Emigration, include only persons who embark in vessels specially fitted out for the conveyance of emigrants; but there is a large number beyond these of passengers in trading vessels, and of families taking up their residence on the continent of Europe, of whom no account is preserved. Confining our statement, as we necessarily must, to the numbers officially recorded in both periods, it appears that the emigrants from Great Britain during the ten years to 1831 amounted to 196,658, while in the ten years to 1841 they amounted to 499,871, showing an excess in the latest period of 303,213 persons. If we add this number to the enumerated population of 1841, we shall find that the increase during the ten years following 1831 was at the rate of

5·02 per cent., which is in a slight degree greater (0·11 per cent.) than e rate of increase between 1821 and 1831.

It is known that some part of the emigrants who proceed from English rts, and especially of those sailing from Liverpool, are natives of eland,* while it is very unusual for English emigrants to sail from y port in Ireland. The proportions just stated are for this reason not rrect; but it is probable that the number of unregistered English migrants may be nearly equal to the Irish who swell the records of nglish ports; and we cannot, perhaps, be far wrong in believing that ere is no serious difference one way or the other between the rate of crease experienced in England and Wales in the ten years ending th 1841, and that rate during the ten years ending with 1831.

The returns of the population of Ireland made under the Act of 13 were so imperfect that it would be improper to found any argu-ent upon them; and the following table has accordingly been con-ructed with reference to the enumerations of 1821, 1831, and 1841 ly.

	1821			1831			
	Males.	Females.	Total.	Males.	Females.	Total.	Increase per Cent.
inster . .	859,798	897,694	1,757,492	927,877	981,836	1,909,713	8·66
nster . .	960,119	975,493	1,935,612	1,093,411	1,133,741	2,227,152	15·00
ster . .	968,061	1,030,433	1,998,494	1,113,094	1,173,528	2,286,622	14·42
naught .	553,948	556,281	1,110,229	660,498	683,416	1,343,914	21·00
	3,341,926	3,459,901	6,801,827	3,794,880	3,972,521	7,767,401	14·19

	1841			
	Males.	Females.	Total.	Increase per Cent.
Leinster	963,747	1,009,984	1,973,731	3·35
Munster.	1,186,190	1,209,971	2,396,161	7·58
Ulster	1,161,797	1,224,576	2,386,373	4·36
Connaught	707,842	711,017	1,418,859	
	4,019,576	4,155,548	8,175,124	5·25
Army serving in Ireland, not included in the General Return of the Census Commission in 1841	16,798	4,675	21,473	..
	4,036,374	4,160,223	8,196,597	..

* Stated by the Census Commissioners for Ireland to have amounted in the ten years to 1,738 persons.

The increase between 1831 and 1841 is at the rate of only 5¼ per cent., while in the preceding period of ten years, it was 14·19 per cent. This great difference between the two periods called for examination; and as the result of this, the Census Commissioners have adduced various circumstances, whereby to show that the real difference is not nearly so great as it appears to be. For a reason already given, it is not possible to state correctly the number of emigrants who quitted Ireland in each of the two periods. So far as the records of the Custom-house avail, it appears that the numbers emigrating from ports in Ireland during the ten years to 1841 were 214,047; the Census Commissioners add to these 152,738 Irish emigrating from Liverpool; and adding further to these numbers 10 per cent. on account of imperfect returns, make the whole number of emigrants from Ireland, during the ten years, 403,459. The population of Ireland is further kept down by the numbers who continually seek a living in other parts of the United Kingdom. The number of Irish-born persons living in England and Scotland, and the British Islands, at the last enumeration, was 419,256; while the residents in Ireland, not native-born, was only 34,608, causing a difference in the population of 384,648 persons, besides the natural increase therefrom arising during the ten years. We have no means for ascertaining how many of these persons quitted their native island previous to 1831; the Census Commissioners have estimated those who left Ireland between 1831 and 1841 at 104,814 only. A further allowance of 21,473 persons is claimed for the army and the families of soldiers, as well as for the recruits furnished to the armies of the State and of the East India Company, said to have amounted to 39,179. If all these persons were added to the number found living in Ireland in 1841, they would make up a population of 8,744,049, and would exhibit a rate of increase during ten years of 12½ per cent.

This rate of increase is still far short of that found to have occurred between 1821 and 1831, and the deficiency would be further increased by restoring to the population of 1831 the numbers of natives who left Ireland during that period. It has been stated, on the other hand, that, at the enumeration of 1831, a powerful influence was exercised to swell the apparent numbers of the population, with a view to serve certain political objects; and that the plan then followed, of paying the enumerators employed in proportion to the numbers returned, tended to the same result.

The result of the inquiry made for the first time in this country at the last census, concerning the places of birth of the inhabitants of different divisions of the kingdom, is shown in the following statement:—

	Males.	Females.	Total.
English born, living in England	7,024,132	7,437,818	14,461,950
" " Wales	440,913	459,808	900,721
" " Scotland	18,562	19,234	37,796
" " Guernsey, &c.	2,423	2,643	5,066
" " Jersey	4,661	5,025	9,686
" " Man	1,626	1,628	3,254
" " Ireland	10,820	10,732	21,552
	7,503,137	7,936,888	15,440,025

	Males.	Females.	Total.
Scottish born, living in Scotland	1,147,800	1,291,469	2,439,269
" " England	59,907	42,158	102,065
" " Wales	797	376	1,173
" " Guernsey, &c.	84	68	152
" " Jersey	158	134	292
" " Man	349	306	655
" " Ireland	4,998	3,587	8,585
	1,214,093	1,338,098	2,552,191

	Males.	Females.	Total.
Irish born, living in Ireland	4,001,559	4,138,957	8,140,516
" " England	148,151	135,977	284,128
" " Wales	3,080	2,196	5,276
" " Scotland	66,502	59,819	126,321
" " Guernsey, &c.	209	248	457
" " Jersey	645	712	1,357
" " Man	810	907	1,717
	4,220,956	4,338,816	8,559,772

	Males.	Females.	Total.
English born	7,503,137	7,936,888	15,440,025
Scottish born	1,214,093	1,338,098	2,552,191
Irish born	4,220,956	4,338,816	8,559,772
Born in Channel Islands (Guernsey, Jersey, and Man)	44,379	52,708	97,087
Born in British Colonies	963	1,300	2,263
Born in Foreign Countries	29,680	18,710	48,390
Not specified where born, including Army, Navy, &c.	268,494	51,336	319,830
Total Population	13,281,702	13,737,856	27,019,558

The population of the United Kingdom, as found at the enumerations of 1821, 1831, and 1841, was as follows:—

	1821	1831	1841
England	11,261,437	13,091,005	15,000,154
Wales	717,438	806,182	911,603
Scotland	2,093,456	2,365,114	2,620,184
Army, Navy, &c.	319,300	277,017	188,453
Great Britain	14,391,631	16,539,318	18,720,394
Ireland	6,801,827	7,767,401	8,175,124
Army, Navy, &c., Ireland	..	..	21,473
Islands in the British Seas	89,508	103,710	124,040
United Kingdom	21,282,966	24,410,429	27,041,031

The places of birth of the persons composing the army in the United Kingdom do not appear in the census returns.

The proportions which the two sexes bore to each other, and the

number of adult males living, in 1831 and 1841, in different parts of the kingdom, were as follows:—

	1831			1841		
	Males.	Females.	Males 20 Years.	Males.	Females.	Males 20 Years.
England	48·71	51·29	24·44	48·83	51·17	25·97
Wales	48·94	51·06	24·15	49·11	50·89	23·51
Scotland	47·14	52·86	23·24	47·39	52·61	23·93
Great Britain, including Army, &c.	49·36	50·64	25·52	49·17	50·83	26·34
Ireland	48·85	51·15	24·04	49·17	50·83	26·04
Great Britain and Ireland	49·20	50·80	23·91	49·17	50·83	25·36
Guernsey	45·86	54·14	23·87	45·38	54·62	25·02
Jersey	46·49	53·51	23·91	45·43	54·57	24·16
Man	47·71	52·29	23·48	47·96	52·04	24·35
Islands in British Seas	46·81	53·19	23·73	46·40	53·60	24·43
United Kingdom	49·18	50·82	23·91	48·79	51·21	25·35

It will be seen, on comparing the proportions of 1841 with those found to exist in 1831, that the relative number of adult males is greater now than at the former period in Great Britain and in Ireland. The smaller proportion of males in Guernsey and Jersey is probably caused by the fact, that in June, 1841, a considerable part of the male population was absent on distant voyages, it being much the practice in those islands for men to leave them early in the spring of each year, and to return at the close of the summer in time to undertake the more laborious part of their occupations as farmers and cultivators.

The result of the foregoing tables shows that the population of Great Britain and Ireland, which in 1821 amounted to 21,193,458, was, at the enumeration in 1831, 24,306,719, showing an actual increase in the numbers of 3,113,261 souls in ten years; the per centage rate of increase during that interval being 14·68, or very nearly one and a-half per cent. per annum; and that, at the last enumeration in 1841, the numbers were 26,916,991, being an increase since 1831 of 2,610,272, or 10·74 per cent., which is very little beyond one per cent. per annum. Comparing 1841 with 1821, it appears that the increase in the twenty years was—

In England	33·20	per cent. or	1·66	per cent.	per annum.
Wales	27·06	„	1·35	„	„
Scotland	25·16	„	1·25	„	„
Ireland	20·50	„	1·02	„	„
The United Kingdom	27·06	„	1·35	„	„

To appreciate fully the condition and progress of the country, as thus indicated, it is necessary to carry back the inquiry to the result of the computations made, as already mentioned, from the registers of baptisms and burials during the eighteenth century. For this purpose, the following table is given by Mr. Rickman, on the authority of Mr. Finlaison, the Actuary to the National Debt Office, who has been engaged for a series of years in a sedulous investigation of the law of

mortality, and has in the course of his inquiries subjected the materials thus furnished to every test suggested by the present comparatively advanced state of physical and statistical science.

*Population of England and Wales, including the Army, Navy, and Merchant Service, in the middle of each of the Years given.**

Years.	Number.	Increase per Cent.	Years.	Number.	Increase per Cent.
1700	5,134,516	..	1760	6,479,730	7·28
1710	5,066,337	..	1770	7,227,586	11·54
1720	5,345,351	5·50	1780	7,814,827	8·12
1730	5,687,993	6·41	1790	8,540,738	9·29
1740	5,829,705	2·49	1800	9,187,176	7·56
1750	6,039,684	3·60			

It will be seen, from this statement, how slowly, when compared with later periods, the population increased during the last century. The computation made for the middle of 1710 even exhibits a decrease during the ten preceding years. The country was indeed at war during the greater part of that period, but hostilities were not then conducted upon so extensive a scale as they have since been without causing any important check to be given to the natural increase of the population. Neither was there in the period referred to any considerable rise or fluctuation in the prices of provisions, and in each of the years the exports of wheat were considerably in excess of the imports. The increase of population in the first half of the last century appears to have been 905,368, or 17¼ per cent., while in the second half it amounted to 3,147,492, or 52$\frac{1}{10}$ per cent.

For the purpose of comparison with the corresponding number of years in the present century, it may be stated that the increase during thirty years, from 1770 to 1800, is computed to have amounted to 1,959,590, or 27$\frac{1}{10}$ per cent.; while the actual increase in England and Wales, in the same space of time, between 1801 and 1831, as found by enumeration, reached to 5,024,207 souls, or 56$\frac{2}{3}$ per cent.

The following statement shows the total number of persons, distinguishing the place of their birth, and males from females, who were living in England, Wales, Scotland, Ireland, and the British islands of Guernsey, &c., at the enumeration of 1841.

* Further researches into this subject were subsequently made by Mr. Rickman, the result of which is given in the Preface to the Census Returns of 1841, pages 36, 37. It will be seen that the numbers for 1700 and 1750 are considerably greater than those given in the former estimate:—

Years.	Population of England and Wales, deduced from Baptisms and Burials.	Increase per Cent.
1570	4,160,321	..
1600	4,811,718	15·66
1630	5,600,317	16·38
1670	5,773,646	3·09
1700	6,045,008	4·70
1750	6,517,035	7·81

Population in 1841.

	Males.	Females.	Total.	Proportion per Cent.
Residing in England.				
English born.—Residing in the Counties of their birth	5,900,960	6,190,434	12,091,394	80·7
" Residing out of their native Counties	1,123,172	1,247,384	2,370,556	15·9
Scottish born	59,907	42,158	102,065	0·6
Irish born	148,151	135,977	284,128	1·9
British Colonial	480	596	1,076	
Foreigners, and British subjects born in foreign lands	24,323	14,305	38,628	0·02
Place of Birth not specified	66,394	40,897	107,291	0·07
	7,323,387	7,671,751	14,995,138	100·
Residing in Wales.				
Born in Wales or England.—Residing in the Counties where born	375,945	398,448	774,393	84·9
" Residing out of native Counties	64,968	61,360	126,328	13·9
Born in Scotland	797	376	1,173	0·1
Born in Ireland	3,080	2,196	5,276	0·6
Born in British Colonies	5	7	12	
Foreigners, and British subjects born in foreign lands	400	216	616	0·1
Place of Birth not specified	2,512	1,293	3,805	0·4
	447,707	463,896	911,603	100·
Residing in Scotland.				
Born in Scotland.—In the same County	931,616	1,056,408	1,988,024	75·9
" In other Counties	216,184	235,061	451,245	17·2
Born in England	18,562	19,234	37,796	1·45
Born in Ireland	66,502	59,819	126,321	4·8
Born in British Colonies	107	165	272	
Foreigners, and British subjects born in foreign lands	1,561	1,215	2,776	0·1
Place of Birth not specified	7,330	6,420	13,750	0·55
	1,241,862	1,378,329	2,620,184	100·
Residing in Islands in the British Seas.				
Born in the British Isles.—In the same Island	44,246	52,537	96,783	78·03
" In other Islands	133	171	304	0·24
Born in England	8,710	9,296	18,006	14·5
Born in Scotland	591	508	1,099	0·9
Born in Ireland	1,664	1,867	3,531	2·9
Born in the British Colonies	20	22	42	0·03
Foreigners, and British subjects born in foreign lands	1,548	1,212	2,760	2·2
Not specified where born	644	871	1,515	1·2
	57,556	66,484	124,040	100·
Residing in Ireland.				
Irish born.—Residing in Counties where born	3,800,987	3,934,164	7,735,151	94·62
" Residing out of Native Counties	200,572	204,793	405,365	4·96
Born in England	10,820	10,732	21,552	0·26
Born in Scotland	4,998	3,587	8,585	0·11
Foreigners, and British subjects born in foreign lands	2,199	2,272	4,471	0·05
	4,019,576	4,155,548	8,175,124	100·

Population in 1841—*continued.*

	Males.	Females.	Total.
Persons ascertained to have been Travelling in Great Britain during the night of 6th June, 1841 . . .	4,130	886	5,016
Army, Navy, &c., Great Britain . .	187,484	969	188,453
„ Ireland	..	..	21,473
Total of United Kingdom	..	..	27,041,031

The ages of persons living in any community form a very important element towards the profitable examination of all tables of population. It must be regretted that the late Mr. Rickman, to whom the country is under much obligation for the labour bestowed by him in superintending the enumerations of 1821 and 1831, did not attach its due amount of importance to this particular branch of the inquiry; and that, having obtained the ages of persons living in 1821, he was contented, at the next enumeration, with ascertaining the number of males twenty years of age and upwards, assuming that the proportionate ages in any country must be considered invariable; and that, when once ascertained, as they had been in 1821, it must be a needless labour to collect them in future. How ill founded in fact this assumption was, has been proved by the returns of 1841; and, indeed, it is surprising how a mind so acute as was that of Mr. Rickman could have formed the belief that, amid constantly varying circumstances of health and disease, abundance and scarcity, war and peace, to say nothing of emigration, and other minor disturbing causes, this most significant indication of the condition of the people should alone remain unchanged. At the enumeration of 1821, which, according to Mr. Rickman, should exhibit the proportions at all times of the ages of the population, it appeared that the number of males twenty years of age and upwards, living in England, was 2424 in each 10,000 of the population. This proportion was increased, in 1831, to 2444 in 10,000; and, in 1841 to 2597 in that number. Whether the maximum proportion has yet been reached it is not possible to say, neither is it possible to determine what is the proportion which, under the ordinary conditions of society, would be maintained. A state of war, which selects its victims for the most part from among the adult male population, would inevitably change the proportions; and it is no doubt one result of the peace so long maintained in Europe, that the number of adult males now bears so much larger a proportion to the aggregate population, than it bore in 1821, a few years after the termination of one of the most bloody wars that ever stained the annals of history.

The following table exhibits the centesimal proportions of persons

living at various ages in the different divisions of the United Kingdom, in 1821 and 1841 respectively:—

	England.		Wales.		Scotland.		Ireland.	
	1821	1841	1821	1841	1821	1841	1821	1841
Under 5 Years .	14·92	13·23	14·47	13·37	13·89	13·16	15·32	15·25
5 to 10 „ .	13·04	11·95	13·42	12·26	12·62	12·03	13·55	13·21
10 „ 15 „ .	11·12	10·87	11·50	11·19	11·47	11·39	12·19	11·95
15 „ 20 „ .	9·92	9·96	10·06	10·11	10·40	10·33	12·20	11·61
20 „ 30 „ .	15·78	17·87	14·98	16·69	16·37	17·56	17·60	17·61
30 „ 40 „ .	11·84	12·95	11·40	12·06	11·53	12·58	11·49	11·57
40 „ 50 „ .	9·36	9·63	8·92	8·99	9·19	9·35	7·72	8·42
50 „ 60 „ .	6·59	6·42	6·59	6·82	6·82	6·27	6·01	6·06
60 „ 70 „ .	4·53	4·36	5·06	4·95	4·81	4·40	2·73	2·76
70 „ 80 „ .	2·25	2·13	2·62	2·53	2·21	2·18	0·96	1·15
80 „ 90 „ .	0·60	0·58	0·89	0·93	0·62	0·69	0·20	0·28
90 and upwards .	0·05	0·05	0·09	0·10	0·07	0·06	0·03	0·05
								*0·08

It must, of course, be of the first importance, as respects the progress of any people, that the productive part of its population should be large in proportion to the number of children on the one hand, and of aged persons on the other, who must, in some degree, be considered as dependent upon those in the active period of life. If we assume that this active period is to be found between the ages of fifteen and fifty, the comparative condition in this respect of the United Kingdom, in 1821 and 1841, will have been as follows:—

	England.		Wales.		Scotland.		Ireland.	
	1821	1841	1821	1841	1821	1841	1821	1841
Under 15 . . .	39·08	36·05	39·39	36·82	37·98	36·58	41·06	40·41
Between 15 and 50	46·90	50·41	45·36	47·85	47·49	49·82	49·01	49·21
Above 50 . . .	14·02	13·54	15·25	15·33	14·53	13·60	9·93	10·38
	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00

It thus appears that, in each division of the kingdom, there was a larger proportion of the population between the ages of fifteen and fifty in 1841 than in 1821. In each 10,000 persons living there were between those ages—

	In 1821.	In 1841.	Increase.
In England . .	4,690	5,041	351
Wales . . .	4,536	4,785	249
Scotland . .	4,749	4,982	233
Ireland . .	4,901	4,921	20

The statement exhibits an improvement in each division of the kingdom, but to a very much smaller extent in Ireland than in Great Britain. Taking 10,000 of the population in England and Ireland respectively, it appears that in 1841 there were in that number—

* Unascertained.

	England.	Ireland.
Children under 15 years	3,605	4,041
Adults between 15 and 50 . . .	5,041	4,921
Elderly people between 50 and 60 .	642	606
Above 60 years old	712	432
	10,000	10,000

The establishing of a department for the systematic registration of births, marriages, and deaths, in England and Wales, has been of great use in the examination of questions depending upon various contingencies connected with human life. It is greatly to be regretted that the system was not at once made to embrace Scotland and Ireland; and it affords matter of much surprise, that a plan, acknowledged by all to have been highly beneficial where applied, has not hitherto been extended to those parts of the kingdom.

The yearly statements of the Registrar-General, beginning at Midsummer, 1837, were made to terminate on the 30th June; but in the tables for the year 1841, it was judged advisable to depart from this arrangement, and to give the numbers for the entire current year. The following table affords means for comparing the result of the proportion of deaths at different ages registered under the existing law, with the proportion recorded in the parish registers during eighteen years, as given by Mr. Rickman:—

Proportion of Deaths in 10,000 *at different Ages.*

	1838	1839	1840	1841	1842	1846	Five Years, 1838–1842	Eighteen Years, 1813–1830
Under 5 years	3,911	3,959	4,056	3,892	3,982	4,119	3,967	3,451
5 to 10 "	460	476	528	520	493	415	505	424
10 " 15 "	259	272	271	265	259	246	268	265
15 " 20 "	342	354	353	351	339	329	347	343
20 " 30 "	787	796	765	780	753	762	772	781
30 " 40 "	685	677	658	658	649	641	660	672
40 " 50 "	644	629	597	605	596	604	611	660
50 " 60 "	640	630	596	622	620	615	619	700
60 " 70 "	820	806	768	812	814	796	802	917
70 " 80 "	858	837	829	877	881	878	855	1,049
80 " 90 "	515	487	496	531	526	509	511	642
90 " 100 " / 100 & upwards	79	77	83	87	88	86	83	96
Ages unknown .	..	..	..	..	..	..	..	..
	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

The mode at present employed for ascertaining the progress of the population in France is the same as that by which the population of England and Wales has been calculated for the eighteenth century; and the law of that country respecting the registrations of births and burials is so strictly enforced that there is good reason for relying upon the general accuracy of the computations derived from those documents. It would not be satisfactory to draw any comparison between the popu-

lation returns of France and those of our own country during the last thirty years, owing to the great changes made during a part of that time in the extent of the French territory; but we may obtain satisfactory means of comparison by carrying back the inquiry ten years further, to a time before additions were made to the territory of the ancient monarchy.

In 1791, a committee of the Constituent Assembly, appointed for the purpose of inquiring concerning the population of the kingdom, reported that it amounted to 26,363,000

In 1817, when France had again been reduced by the treaty of Paris to its ancient limits, the population returns gave a total of 29,217,465

In 1825, the numbers were 30,451,187

In 1831, France contained a population of 32,560,934

And in 1841, when the last census was taken, the numbers were 34,230,178

The increase, according to these statements, has amounted—

					Souls.	Per Cent.
In 50 years,	between	1791	and	1841, to	7,867,178,	or 29⅝
40 „	„	1791	„	1831 „	6,197,934,	„ 23½
26 „	„	1791	„	1817 „	2,854,465,	„ 10⅝
8 „	„	1817	„	1825 „	1,233,722,	„ 4½
6 „	„	1825	„	1831 „	2,109,747,	„ 7

It will be seen that these rates of increase are widely different from those which have marked the progress of population in this kingdom. In the forty years previous to 1841, the increase of numbers in England and Wales was equal to 79⅓ per cent., showing an advantage in favour of England in the proportion of more than three to one. If the comparison be made with reference to the period between 1817 and 1841, it will be found that, while the increase in the French population was 17·15 per cent. in 24 years, or after the rate of about three-quarters per cent. (·715) annually, the increase in the United Kingdom was double that rate, or about 1½ per cent. (1·43) annually. According to these rates of increase, the population of the United Kingdom would double itself in about 52 years; while, at the rate experienced in France, a similar effect would not be produced in less than one hundred years.

In both countries the increase here stated has been the result, not of an increased proportion of births, for in fact the births, if calculated with relation to the numbers of the people, have diminished, but to a lessened proportion of deaths. In France, the births, which in 1817, were in the proportion of 1 in 31, were in 1834, in the proportion of 1 in 33⅓; while the deaths, which, in 1817, were 1 in 39½, were diminished in 1834 to 1 in 41. In England the proportions of births and deaths, at different periods since the beginning of the century, and pre-

ceding the adoption of a system of registration, were calculated to be as follows :—

For ten years preceding	1811	Births, one in	31½
„	„	Deaths, „	53¾
„	1821	Births, „	31¾
„	„	Deaths, „	60½
„	1831	Births, „	34½
„	„	Deaths, „	58½

The following table, taken from the Reports of the Registrar-General, gives the number of deaths and the proportions occurring at different ages during each of the three years ending 30 June, 1838, 1839, and 1840, and during the entire years of 1841 and 1842.

Number of Deaths in England and Wales, and the Centesimal Proportions of the same that occurred at different Ages.

Ages at which the Deaths occurred.	YEAR ENDING 30th JUNE, 1838 Number.	1838 Per Cent.	1839 Number.	1839 Per Cent.	1840 Number.	1840 Per Cent.
Under 5 years	131,034	39·11	130,695	39·59	141,747	40·56
5 years and under 10 years	15,440	4·60	15,716	4·76	18,459	5·28
10 „ 15 „	8,684	2·59	8,994	2·72	9,469	2·71
15 „ 20 „	11,448	3·42	11,697	3·54	12,345	3·53
20 „ 30 „	26,363	7·87	26,289	7·96	26,722	7·65
30 „ 40 „	22,954	6·85	22,349	6·77	22,992	6·58
40 „ 50 „	21,595	6·44	20,752	6·29	20,889	5·97
50 „ 60 „	21,437	6·40	20,797	6·30	20,854	5·96
60 „ 70 „	27,482	8·20	26,613	8·06	26,824	7·68
70 „ 80 „	28,748	8·58	27,639	8·37	28,982	8·29
80 „ 90 „	17,263	5·15	16,102	4·87	17,259	4·96
90 „ 100 „	2,529	0·79	2,403	0·77	2,787	0·83
100 and upwards	105		103		121	
Ages unknown	874	..	858	..	651	..
	335,956	100·	331,007	100·	350,101	100·

Ages at which the Deaths occurred.	YEAR ENDING 31st DECEMBER, 1841 Number.	1841 Per Cent.	1842 Number.	1842 Per Cent.
Under 5 years	133,583	38·92	139,035	39·82
5 years and under 10 years	17,868	5·20	17,208	4·93
10 „ 15 „	9,116	2·65	9,040	2·59
15 „ 20 „	12,056	3·51	11,832	3·39
20 „ 30 „	26,811	7·80	26,279	7·53
30 „ 40 „	22,609	6·58	22,644	6·49
40 „ 50 „	20,754	6·05	20,791	5·96
50 „ 60 „	21,363	6·22	21,659	6·20
60 „ 70 „	27,884	8·12	28,413	8·14
70 „ 80 „	30,094	8·77	30,769	8·81
80 „ 90 „	18,231	5·31	18,379	5·26
90 „ 100 „	2,847	0·87	2,965	0·88
100 and upwards	110		109	
Ages unknown	521	..	336	..
	343,847	100·	349,519	100·

A different classification as respects ages has been adopted by the Registrar-General in his more recent calculations. The following table of the number and centesimal proportions of deaths at different ages that occurred in England in the seven years from 1838 to 1844, is deduced from the Appendix to the Ninth Annual Report of that gentleman.

Ages at which the Deaths occurred.	Number.	Per Cent.
Under 5 years	964,807	39·66
5 years and under 10 years	121,562	4·99
10 „ 15 „	63,690	2·62
15 „ 25 „	179,985	7·40
25 „ 35 „	169,670	6·97
35 „ 45 „	154,524	6·35
45 „ 55 „	147,727	6·07
55 „ 65 „	171,814	7·06
65 „ 75 „	210,565	8·66
75 „ 85 „	182,941	7·52
85 „ 95 „	60,664	2·50
95 years and upwards . .	4,839	0·20
	2,432,788	100·00
Ages unknown . .	3,860	
	2,436,648	

This table has a greater value for purposes connected with the business of life assurance and annuities, from the fact that the enumeration of 1841 occurred in the middle of the period of seven years which it embraces.

The numbers dying in proportion to the population during those years, as ascertained from actual registration, were—

		Males. One in	Females. One in	Males & Females. One in
Year ending 30th June	1839	44·57	48·77	46·63
	1840	43·02	46·56	44·76
	1841	43·17	46·33	44·73
Year ending 31st Dec.	1841	44·61	47·95	46·26
	1842	44·57	47·63	46·08

The discrepancy between these proportions, and those assumed at previous periods, will serve to show the danger of relying upon estimates, however carefully made, but which are without any certain basis.

The estimated proportions of deaths in the course of the preceding century were—

1700, one in	39½	1770, one in	41½
1710, „	36 1/10	1780, „	41½
1720, „	35½	1785, „	41¾
1730, „	31 1/10	1790, „	45⅛
1740, „	35½	1795, „	47½
1750, „	40⅜	1800, „	47¾
1760, „	41⅓		

Showing a continually diminishing mortality. This effect, so strongly indicative of amendment in the condition of the people, must be attributed to the coincidence of various causes. Among these may be

mentioned, the less-crowded state of our dwellings; the command of better kinds of food; the superiority and cheapness of clothing; and probably, also, more temperate habits and greater personal cleanliness. One influential cause of the diminished rate of mortality will be found in the introduction of vaccination, which has had so powerful an effect in diminishing the rate of mortality among children; besides these, the extensive surface drainage which has been going forward in those parts of the country which, owing to the presence of stagnant waters, were once productive of intermittent fevers, has added to the general healthiness of the country.

The superiority of this country, in respect of the comparative rates of mortality, may be seen in the following statement of the annual proportions of deaths to the whole population in the different countries named, which was communicated to Mr. Rickman by Sir Francis D'Ivernois, a gentleman who has devoted his attention for many years to the elucidation of various phenomena relating to the law of mortality :—

England and Wales, one death in		59*
Sweden and Denmark,	„	48
Holland and Belgium,	„	43
France	„	40
United States of America,	„	37
Prussia	„	36
Wurtemburg . . .	„	33

In the following statement, extracted from a table inserted by Mr. Senior in his excellent preface to the "Foreign Communications," sent to the Poor Law Commissioners, are given, on competent authority, generally official, various particulars relative to the population of countries in most parts of the world.—*See* p. 22.

The proportionate number of children born in any country cannot be taken as a test of the condition of the people. It is well known that in climates where the waste of human life is excessive from the combined causes of disease and poverty affecting the mass of the inhabitants, the number of births is proportionately greater than is experienced in communities more favourably circumstanced. Frequently, and indeed almost always in old settled countries, the proportionate number of births decreases with the advance of civilization, and the more general diffusion of the conveniences and luxuries of life. In fact, the population does not so much increase because more are born, as because fewer die.

The bills of mortality for various parishes of the cities of London and Westminster, and some out-parishes in Middlesex and Surrey, have been kept with a great degree of accuracy for a long series of years, and afford the means for testing this view of the subject by giving in

* Now seen to be incorrect.

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		Males. One in	Females. One in	Males & Females. One in
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	1840	43·02	46·56	44·76
	1841	43·17	46·33	44·73
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	1842	44·57	47·63	46·08

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1720, „	35½	1785, „	41¾
1730, „	31 1/10	1790, „	45½
1740, „	35½	1795, „	47½
1750, „	40⅔	1800, „	47¾
1760, „	41½		

Showing a continually diminishing mortality. This effect, so indicative of amendment in the condition of the people, must buted to the coincidence of various causes. Among these

In the ten years from 1751 to 1760, the total number of burials within the Bills of Mortality was 205,279, of whom 106,264, or 51¾ per cent., were under twenty years of age.

			Under 20 Years.	
From 1761 to 1770,	234,407,	of whom	118,963	or 50¾ per cent.
1771 „ 1780,	214,605	„	112,133	„ 52½ „
1781 „ 1790,	192,690	„	96,126	„ 49⅞ „
1791 „ 1800,	196,801	„	98,104	„ 49⅞ „
1801 „ 1810,	188,842	„	90,397	„ 47⅞ „
1811 „ 1820,	190,568	„	85,954	„ 45 1/10 „
1821 „ 1830,	209,094	„	96,336	„ 46½ „

The Census Commissioners for 1841 have given a statement, from which the following abstract is made, of the ages of 348,018 persons, viz., 175,843 males and 172,175 females, who were buried in the metropolis during the ten years, 1831 to 1840.

	Males.	Females.	Males & Females.
Under 5 years	65,484	59,603	125,087
5 to 9 „	8,576	7,902	16,478
10 „ 14 „	3,110	2,824	5,934
15 „ 19 „	3,861	3,938	7,799
20 „ 24 „	5,862	5,675	11,537
25 „ 29 „	6,432	6,637	13,069
30 „ 34 „	7,124	6,930	14,054
35 „ 39 „	8,169	7,435	15,604
40 „ 49 „	17,404	14,730	32,134
50 „ 59 „	16,709	14,640	31,349
60 „ 69 „	16,366	17,256	33,622
70 „ 79 „	11,925	16,014	27,939
80 „ 89 „	4,368	7,509	11,877
90 „ 99 „	424	1,032	1,456
100 and upwards .	29	50	79
	175,843	172,175	348,018

The proportion of persons dying under twenty years of age is thus seen to be still diminishing, this proportion during the ten years ending with 1840 having been 44 1/10 per cent.

It is not possible to state the numbers of persons who, at several periods, have inhabited that part of the metropolis which is included within the Bills of Mortality; no precise calculation can therefore be given as to the proportion of deaths to population occurring at different intervals.

It will appear, from inspection of the above tables, that the improvement in this respect which has been progressive since the middle of the last century, has become much more rapid since the beginning of the present. The difference observable between the proportionate number of deaths under twenty, in the decade commencing with 1751, and in that ending with 1800, two periods the extremes of which are separated from each other by a space of fifty years, shows an improvement of only 1¼ per cent.; while the difference experienced in the ten years that occurred between 1831 and 1840 shows an improvement of 7¼ per cent. as compared with 1751-60, and of 5¼ per cent. as compared with 1791-

1800. It must be borne in mind, that the improvement here spoken of is calculated upon the actual number of deaths among the population; and that to form a just estimate of the probability of life among the young at the present time as compared with former periods, the number of deaths occurring under twenty should be calculated not upon the number who have died, but upon the number of the entire population. The estimate given above merely compares one improvement with another, or rather shows which of the classes, the young or the old, has participated most largely in the improvement which has taken place. In 1780, the annual mortality of England and Wales, according to the data then available, was 1 in 40; in 1801, it was 1 in 48; and in 1830, it had decreased to 1 in 58. Supposing these proportions, which have been established for the whole of England and Wales, to be applicable to London, we find the progressive decrease in the mortality of persons under twenty was as follows:—

In 1780 the deaths under	20	years	of age were	1 in 76½
1801	„	„	„	1 „ 96¼
1830	„	„	„	1 „ 124¾
1838	„	„	„	1 „ 137

being not much more than one-half of the proportion who died under twenty half a century ago.

In noticing the subject of the mortality of children, Sir Francis D'Ivernois observes,* "If the different States of Europe were to keep and publish every year an exact account of their population, carefully stating, in a separate column, the precise ages at which children have died, that separate column would exhibit the relative merits of the governments, as indicated by the comparative happiness of their subjects. A simple statement of figures would then be more conclusive upon this point than any other arguments that could be adduced." It is to be remembered, however, first, that a government cannot, with reason, be held to be the source of *all* the circumstances, favourable and unfavourable, which affect the happiness of a country; and secondly, that the proposed comparison would at best only furnish an indication as to the conduct of the actual government of any country, not as to the permanent excellence of the constitution.

It cannot be necessary to multiply evidence in order to prove that the number of births has decreased, and is still decreasing, in proportion to the amount of population in this kingdom. The abstracts of parish register returns, made with so much care and ability by Mr. Rickman, and continued by the Census Commissioners of 1841, may be taken as conclusive proofs of the fact.

It was for a long time the practice with political calculators to consider a great proportion of births among the people as being one of the surest

* Tableau des Pertes, &c., ch. ii., p. 16.

signs of a country being in a flourishing condition. Under certain circumstances there can be no doubt that an increase of numbers thus brought about is a favourable symptom. In thinly-peopled but fertile countries, and in newly-settled states, this will generally be the case; but it appears an error to consider a large proportion of births as necessarily a symptom of improvement in well-peopled territories; and it might with more truth be asserted that the contrary condition of a small proportion of births is indicative of prosperity in the mass of the people. In Ireland population increases almost as fast as in England, yet the people improve but little in their condition. Circumstances which have increased the rate of mortality have always tended to increase likewise the number of births; an effect which is produced by the rise in the wages of labour following necessarily from a diminution in the number of labourers, the class which for the most part furnishes the increased proportion of deaths.

On the other hand, the increase of population which results from a diminishing proportion of deaths is an unerring sign of advancing prosperity in the people.

The following table was given in evidence before the Committee of the House of Commons which sat in May 1830, to inquire concerning the returns under the Population Act:—

Years.	Population deduced from Baptisms.	Burials in the Year 1780.	Rates of Registered Burials.
1780	7,953,000	198,300	1 in 40·10
		Average Burials, 1780—1800.	
1780	7,953,000	192,000	1 in 41·42
1785	8,016,000	192,000	1 in 41·75
1790	8,675,000	192,000	1 in 45·18
1795	9,055,000	192,000	1 in 47·16
	Enumerated Population.		
1800	9,168,000	192,000	1 in 47·75
		Average of ten preceding years.	
1810	10,488,000	195,000	1 in 53·78
1820	12,190,000	201,000	1 in 60·65
		Registered Burials in 1820.	
1820	12,190,000	208,300	1 in 58·50

The small rate of improvement observable in the latter end of the last century is no doubt the effect in a great degree of the deficient harvests in 1795 and 1800.

The Report of the Census Commissioners for 1841 contains an estimate

of the "Population of the several Counties of England and Wales, calculated on the supposition that the registered baptisms, burials, and marriages, on an average of three years, in 1570, 1600, 1630, 1670, 1700, and 1750, bore the same proportion to the actual population as in the year 1801." This estimate was compiled by the late Mr. Rickman, and was handed, with other of his papers, to the Commissioners. It does not pretend to accuracy; and if even the materials for such a computation had been in existence in every parish throughout the kingdom, which is far from being the case, the correctness of the results would have been rendered more than questionable by reason of the changes that must have occurred during that lengthened period in the sanatory condition of the country. A statement of those results must, however, be interesting; and will command respect as the work of a mind possessing singular acuteness, and having great experience in such investigations.

Years.	Estimate calculated from			Population according to the average of the 3 preceding Columns.
	Baptisms.	Burials.	Marriages.	
1570	3,852,122	4,167,362	4,461,178	4,160,221
1600	4,883,059	4,364,637	5,187,458	4,811,718
1630	5,527,780	5,798,176	5,475,594	5,600,517
1670	5,256,700	7,199,693	4,864,546	5,773,646
1700	5,728,430	6,661,698	5,744,896	6,045,008
1750	6,377,574	6,717,858	6,455,672	6,517,035

It has been supposed that the general healthiness and duration of life among the people must be diminished by their being brought together in masses, and in particular it has been objected to the factory system of this country, that by this means it has added to the sum of human misery. To combat this opinion, it will be sufficient at present to bring forward the case of Manchester, where the increase of population has been great beyond all precedent, owing to the growth of its manufacturing industry.

The population of the townships of Manchester and Salford, at each of the decennary enumerations, was found to be as follows:—

1801	94,876		
1811	115,874	Increase	22 per cent.
1821	161,635	„	39½ „
1831	237,832	„	47 „
1841	353,390	„	48½ „

The increase during the whole period of forty years being 258,514, or 272 per cent. upon the population of 1801. Much of this increase has arisen from continual immigration to a town of such growing manufacturing prosperity. The degree in which the natural condition of the population has been thereby affected, will be seen from the following figures, which exhibit the proportions living at different ages in Manchester and Salford, compared with the proportions in all England at the Census in 1841:—

	Manchester and Salford.	England.
Under 5 years.	1,328	1,323
5 and under 10 years	1,070	1,195
10 „ 15 „	1,007	1,087
15 „ 20 „	1,004	996
20 „ 30 „	2,059	1,787
30 „ 40 „	1,549	1,295
40 „ 50 „	996	963
50 „ 60 „	545	642
60 „ 70 „	306	436
70 „ 80 „	113	213
80 „ 90 „	21	58
90 and upwards . .	2	5
	10,000	10,000

The mortality of these townships in the middle of the last century, as stated from the parish registers, was 1 in 25; in 1770, 1 in 28. In 1811, when the population had already very greatly increased, the rate of mortality had sunk considerably, and in the ten years ending with 1830 was not more than 1 in 49; a low rate, if we take into the account the fact that, in manufacturing towns, children are brought together in a much greater proportion than the average of the kingdom.

The decrease in the proportion of deaths among children in London has already been mentioned. It is not easy to determine satisfactorily the number of deaths of aged persons, in consequence of the prevailing custom of persons whose worldly circumstances allow of their doing so, to retire in the evening of their days from the crowded city to the country. We may mention, however, that for several years the bills of mortality have exhibited a continually and steadily increasing number of persons whose deaths can be ascribed to no particular disease, and who are stated to have vanished from the scene of life in consequence of "old age and debility."

The annual mortality of the county of Middlesex, the largest proportion of whose population belongs to the metropolis, was, according to the parish registers, in 1801, 1 in 35, having been computed at the beginning of the preceding century at 1 in 25; whereas in 1830 the rate of mortality had diminished to 1 in 45, and in 1840 was only 1 in 53, a rate much more favourable than that for the whole of France, and indeed of almost any other country in Europe, and materially less than the known rate of mortality of every populous city out of the United Kingdom.* The greater mortality of cities, as compared with rural districts, has been attributed to "the constant importations from the country of individuals who have attained to maturity, but having been previously habituated to frequent exercise in a pure atmosphere, and to a simple regular diet, are gradually sacrificed to confined air, sedentary habits, or a capricious and over-stimulating food."†

* The deaths recorded in the Civil Register for 1840 in Middlesex were 37,818, which, for a population of 1,576,636, shows one death for 41·69 inhabitants.

† Elements of Medical Statistics, by Dr. F. Bisset Hawkins, p. 54.

The following abstract of the detailed statement of the ages of 3,938,496 persons buried in England and Wales during the 18 years, from 1813 to 1830, is taken from Mr. Rickman's Tables of 1831.

AGES.	MALES.			FEMALES.			BOTH SEXES.		
	Born and remaining alive at each period.	Died.	Died in each period out of each 1000 remaining.	Born and remaining alive at each period.	Died.	Died in each period out of each 1000 remaining.	Born and remaining alive at each period.	Died.	Died in each period out of each 1000 remaining.
Under 5 years	1,996,195	736,039	369	1,942,301	622,903	321	3,938,496	1,358,942	345
5 to 9	1,260,156	87,263	69	1,319,398	79,732	61	2,579,554	166,995	65
10 „ 14	1,172,893	52,324	45	1,239,666	52,155	42	2,412,559	104,479	43
15 „ 19	1,120,569	63,405	57	1,187,511	71,535	60	2,308,080	133,940	59
20 „ 29	1,057,164	144,586	137	1,115,976	163,140	146	2,173,140	307,726	142
30 „ 39	912,578	123,996	136	952,836	140,848	148	1,865,414	264,844	142
40 „ 49	788,582	129,675	165	811,988	130,139	160	1,600,570	259,814	162
50 „ 59	659,907	142,843	217	681,849	132,918	195	1,340,756	275,761	206
60 „ 69	516,064	182,007	353	548,931	179,251	327	1,064,995	361,258	339
70 „ 79	334,057	202,208	605	369,680	211,028	571	703,737	413,236	587
80 „ 89	131,849	116,726	886	158,652	136,085	858	290,501	252,811	870
90 „ 99	15,123	14,486	960	22,567	21,304	948	37,690	35,790	948
100 and upwards	637	637	1000	1,263	1,263	1000	1,900	1,900	1000

The following continuation of the statement for the ten years, 1831 to 1840, has been compiled under the authority of the Census Commissioners.

Under 5 years	1,395,856	521,015	373	1,353,981	451,865	333	2,749,837	972,880	353
5 to 9	874,841	69,495	79	902,116	66,556	74	1,776,957	136,051	77
10 „ 14	803,346	36,656	45	835,560	37,573	45	1,640,906	74,229	45
15 „ 19	768,690	44,271	57	797,987	51,075	65	1,566,677	95,346	61
20 „ 29	724,419	103,526	143	746,912	112,753	151	1,471,331	216,279	147
30 „ 39	620,803	89,537	144	634,159	96,316	152	1,255,052	185,853	148
40 „ 49	531,356	91,627	172	537,843	86,914	162	1,069,199	178,541	167
50 „ 59	439,729	98,025	219	450,929	90,343	200	890,658	188,368	211
60 „ 69	341,704	121,520	355	360,586	119,413	331	702,290	240,933	343
70 „ 79	220,184	131,762	599	241,173	137,475	570	461,357	269,237	584
80 „ 89	88,422	78,781	891	103,698	89,375	863	192,120	168,156	875
90 „ 99	9,641	9,320	956	14,323	13,722	960	23,964	23,042	965
100 and upwards	321	321	1000	601	601	1000	922	922	1000

The foregoing table of deaths, from 1813 to 1830, (page 28,) is known to be incomplete, through the omission of infants who died before baptism, and who were not registered, and because no account was taken of the deaths of persons "at sea, or in the army, or otherwise abroad." Mr. Finlaison, the Actuary of the National Debt Office, has estimated these omissions, and in a letter addressed to the Registrar-General, and published in the First Annual Report of that officer, states the total deaths to have amounted in the 18 years to 4,360,691 persons (2,347,821 males, and 2,112,870 females). This correction is of importance, as it enables us better to compare the numbers and proportions of persons dying before the establishing of the office of registration with those more correctly ascertained through that department; and that importance is increased by the fact that the greater part of the omissions from parish registers have occurred with regard to infants, and thus gave rise, while uncorrected, to wrong conclusions regarding a fact of great interest—the ages at which deaths occurred. According to the uncorrected table, the proportion of deaths that occurred in each 1,000 were—

	Males.	Females.	Both Sexes.
Under 5 years	369	321	345
Between 5 and 20 years .	101	104	102
Above 20 years. . . .	530	575	553
	1000	1000	1000

But after supplying the numbers omitted, according to Mr. Finlaison's estimate, we find the proportions to be—

	Males.	Females.	Both Sexes.
Under 5 years	406	375	392
Between 5 and 20 years .	87	96	90
Above 20 years. . . .	507	529	518

These proportions are more nearly in agreement than the parish register abstracts with the numbers found in the civil registers, but do not altogether agree with the statements deduced from the latter. If we compare the number of deaths recorded under the different systems for the years 1838 to 1840, for which years only materials exist, it will be found that while the civil registers record deaths amounting to 1,041,160
the parish registers have recorded only . . 883,912

showing a difference of 157,248

or within a small fraction of 18 per cent. upon the smaller number; the estimated omissions for the 18 years, 1813 to 1830, having been restored by Mr. Finlaison to the extent of only 13¼ per cent. It is impossible to bring the two statements into perfect agreement, and we can only regret

that the value of correct data upon these subjects was not earlier recognised.

The ages of persons dying are not given for individual years in the parish register abstracts for the ten years, 1831-40, but for the whole period, which alone would render unsatisfactory any calculation founded upon that document; but besides this objection we have the further facts that a large proportion of deaths are not recorded at all in the parish registers, and that in the ten years there were 184,684 persons buried whose ages were not ascertained.

An examination of the returns made to the Registrar-General, in conjunction with the population returns for 1841, shows the number of persons living at each decennary period of life among whom one death occurred in 1841, viz.:—

From birth to 10 years .	24·98
11 to 20 years . . .	150·27
21 „ 30 „ . . .	104·31
31 „ 40 „ . . .	90·81
41 „ 50 „ . . .	72·44
51 „ 60 „ . . .	47·31
61 „ 70 „ . . .	24·56
71 „ 80 „ . . .	11·15
81 „ 90 „ . . .	5·00
91 „ 100 „ . . .	2·75
Above 100 „ . . .	2·17

The exclusion from parish registers of all unbaptized infants prevents any correct comparison with former periods, and fully accounts for the fact that while the deaths occurring among children up to 10 years of age were, in 1841, 1 in 24·98, the parish records show, on the average of 10 years, 1831 to 1840, only 1 in 35·54.

It has been noticed by several writers, that in the tables from which the foregoing abstracts have been compiled, a much larger proportion of deaths is assigned to each even decennary year than appears in the year preceding or succeeding, and attempts have been made to account for this circumstance, by supposing that some particular bodily change may occur in human beings at those periods of life. It does not appear very likely that this should be the fact; and the circumstance is in all probability owing to the assignment of those even periods by survivors in the absence of any more precise acquaintance with the ages of persons deceased.

This tendency is found to be equally strong in Ireland; so that calculations founded upon individual years would have no value. It may be presumed, however, that the error will be confined, in the various cases, to the decennary periods in which the deaths occurred, and that statements ending with those periods will be correct.

The following table, which is calculated from data contained in the Report of the Census Commissioners for Ireland, gives the ages of 1,151,254 out of 1,187,374 persons who died in Ireland during 10

years between 6th June, 1831, and the 6th June, 1841, with the proportionate mortality at each period of life.

Ages.	Males.	Females.	Total.	Per Centage proportion.
Birth to 1 year	146,139	123,060	269,199	23·38
2 to 5 years	83,329	82,589	165,918	14·41
6 „ 10 „	29,139	29,133	58,272	5·06
11 „ 20 „	40,725	42,534	83,259	7·23
21 „ 30 „	53,354	48,164	101,518	8·82
31 „ 40 „	42,941	43,644	86,585	7·52
41 „ 50 „	44,895	37,642	82,537	7·17
51 „ 60 „	56,986	51,532	108,518	9·43
61 „ 70 „	47,770	41,737	89,507	7·77
71 „ 80 „	37,894	32,103	69,997	6·08
81 „ 90 „	15,427	12,152	27,579	2·40
91 „ 100 „	4,369	3,996	8,365	0·73
Ages not specified	17,897	18,223	36,120	..
	620,865	566,509	1,187,374	100·

For the purpose of comparing the result in Ireland with that in England, as shown in the table at page 28, the following statement may be consulted:—

AGES.	MALES.			FEMALES.		
	Born and remaining alive at each period.	Died.	Died in each period of each 1000 remaining.	Born and remaining alive at each period.	Died.	Died in each period of each 1000 remaining.
Birth to 5 years	602,968	229,468	380	548,286	205,649	375
6 to 10 „	373,500	29,139	78	342,637	29,133	83
11 „ 20 „	344,361	40,725	118	313,504	42,534	135
21 „ 30 „	303,636	53,354	175	270,970	48,164	177
31 „ 40 „	250,282	42,941	171	222,806	43,644	196
41 „ 50 „	207,341	44,895	216	179,162	37,642	210
51 „ 60 „	162,446	56,986	350	141,520	51,532	363
61 „ 70 „	105,460	47,770	453	89,988	41,737	463
71 „ 80 „	57,690	37,894	656	48,251	32,103	665
81 „ 90 „	19,796	15,427	779	16,148	12,152	752
91 „ 100 „	4,369	4,369	1000	3,996	3,996	1000

AGES.	BOTH SEXES.		
	Born and remaining alive at each period.	Died.	Died in each period of each 1000 remaining.
Birth to 5 years	1,151,254	435,117	378
6 to 10 „	716,137	58,272	81
11 „ 20 „	657,865	83,259	126
21 „ 30 „	574,606	101,518	176
31 „ 40 „	473,088	86,585	183
41 „ 50 „	386,503	82,537	213
51 „ 60 „	303,966	108,518	356
61 „ 70 „	195,448	89,507	458
71 „ 80 „	105,941	69,997	660
81 „ 90 „	35,944	27,579	766
91 „ 100 „	8,365	8,365	1000

The two tables now to be given exhibit the movement of the population during the progress of the present century. The first of these tables records the number of registered baptisms, burials, and marriages, in England and Wales in the course of each year from 1801 to 1849, and

the second gives their annual proportion in each of the counties of England, calculated upon the amount of population therein during each of the quinquennial periods preceding the enumerations of 1801, 1811, 1821, 1831, and 1841.

Baptisms, Burials, and Marriages, in England and Wales.

YEARS.	BAPTISMS.			BURIALS.			MARRIAGES.
	Males.	Females.	Total.	Males.	Females.	Total.	
1801	120,521	116,508	237,029	101,352	103,082	204,434	67,288
1802	139,889	133,948	273,837	99,504	100,385	199,889	90,396
1803	150,220	143,888	294,108	102,459	101,269	203,728	94,379
1804	150,583	144,009	294,592	91,538	89,639	181,177	85,738
1805	149,333	142,868	292,201	91,086	90,154	181,240	79,586
1806	147,376	144,553	291,929	92,289	91,163	183,452	80,754
1807	153,787	146,507	300,294	97,996	97,855	195,851	83,923
1808	151,565	144,509	296,074	102,614	98,149	200,763	82,248
1809	152,812	147,177	299,989	97,894	93,577	191,471	83,369
1810	152,591	146,262	298,853	104,907	103,277	208,184	84,470
1811	155,671	149,186	304,857	94,971	93,572	188,543	86,389
1812	153,949	148,005	301,954	95,957	94,445	190,402	82,066
1813	160,685	153,747	314,432	93,726	92,751	186,477	83,860
1814	163,282	155,524	318,806	103,525	102,878	206,403	92,804
1815	176,233	168,698	344,931	99,442	97,966	197,408	99,944
1816	168,801	161,398	330,199	103,954	102,005	205,959	91,946
1817	169,337	162,246	331,583	101,040	98,229	199,269	88,234
1818	169,181	162,203	331,384	107,724	105,900	213,624	92,779
1819	171,107	162,154	333,261	106,749	106,815	213,564	95,571
1820	176,311	167,349	343,660	104,329	104,020	208,349	96,833
1821	181,811	173,496	355,307	107,482	104,870	212,352	100,868
1822	190,508	182,063	372,571	111,299	109,116	220,415	98,878
1823	189,144	180,616	369,760	119,649	117,737	237,386	101,918
1824	189,401	182,043	371,444	124,027	120,047	244,074	104,723
1825	192,003	183,050	375,053	129,727	125,291	255,018	110,428
1826	194,527	185,886	380,413	136,100	132,061	268,161	104,941
1827	191,428	182,758	374,186	128,991	122,880	251,871	107,130
1828	200,333	192,121	392,454	130,015	125,318	255,333	111,174
1829	194,089	186,156	380,245	134,525	129,705	264,230	104,316
1830	194,200	187,860	382,060	129,290	124,777	254,027	107,719
1831	198,232	190,890	389,122	142,185	136,434	278,619	112,094
1832	197,255	190,716	387,971	150,938	147,223	298,161	116,604
1833	203,348	196,695	400,043	147,393	143,115	290,508	120,127
1834	205,935	199,940	405,875	143,550	139,547	283,097	121,884
1835	206,137	198,930	405,067	144,287	137,258	281,545	119,598
1836	204,985	200,152	405,137	143,982	137,703	281,685	120,849
1837	234,301	228,592	462,893	171,597	165,397	336,994	112,727
1838	236,941	226,846	463,787	175,056	167,491	342,547	113,123
1839	252,080	240,494	492,574	172,766	166,218	338,984	123,166
1840	257,443	244,860	502,303	182,421	177,266	359,687	122,665
1841	262,714	249,444	512,158	174,198	169,649	343,847	122,496
1842	265,204	252,535	517,739	176,594	172,925	349,519	118,825
1843	270,577	256,748	527,325	175,721	170,724	346,445	123,818
1844	277,436	263,327	540,763	181,126	175,807	356,933	132,249
1845	278,418	265,103	543,521	177,529	171,837	349,366	143,743
1846	293,146	279,479	572,625	198,325	191,990	390,315	145,664
1847	275,658	264,307	539,965	214,375	208,929	423,304	135,845
1848	288,346	274,713	563,059	202,949	196,851	399,800	138,230
1849	295,249	282,838	578,087	222,367	219,091	441,458	141,599

The following table of the Annual Proportion of Baptisms, Burials, and Marriages, to the Population of England, is calculated upon an average of the Totals of such Baptisms, Burials and Marriages, in the five years preceding the several enumerations of 1801, 1811, 1821, 1831, and 1841; distinguishing the several counties.

COUNTIES.	1796–1800			1806–1810			1816–1820			1826–1830			1836–1841		
	Bap.	Bur.	Mar.	Bap.	Bur.	Mar.	Bap.	Bur.	Mar.	Bap.	Bur.	Mar.	Bap.	Bur.	Mar.
Bedford . 1 in	35	51	114	32	48	131	33	57	123	35	54	129	37	52	133
Berks . . „	34	51	148	33	53	144	33	54	140	32	52	149	36	49	160
Bucks . . „	37	50	129	32	49	129	33	53	139	34	52	140	37	47	148
Cambridge „	33	45	118	30	30	131	30	55	117	31	45	123	34	48	139
Chester. . „	39	51	130	32	49	132	34	52	127	37	52	139	43	53	153
Cornwall . „	33	58	120	31	62	142	32	69	146	33	64	147	35	58	139
Cumberland „	38	54	145	34	52	132	32	54	151	32	54	163	34	50	183
Derby . . „	35	52	138	32	58	138	34	59	146	35	54	135	40	50	143
Devon . . „	36	49	109	32	50	113	32	59	132	35	58	132	38	56	142
Dorset . . „	41	62	142	34	56	139	34	63	144	35	58	140	36	55	153
Durham . „	38	43	116	32	49	131	32	53	134	32	52	138	34	48	133
Essex . . „	35	44	126	32	45	130	34	58	146	35	52	154	37	52	171
Gloucester. „	37	55	127	35	61	120	35	60	111	35	61	117	38	52	125
Hereford . „	40	65	183	35	60	144	36	60	170	37	57	152	38	50	162
Hertford . „	38	54	161	33	57	168	33	53	171	36	56	175	38	52	183
Huntingdon „	33	46	104	32	49	134	33	61	127	34	46	131	34	53	135
Kent . . „	30	41	116	28	38	115	30	50	130	33	49	143	37	47	155
Lancaster . „	34	47	114	28	49	115	31	51	116	34	46	115	39	56	120
Leicester . „	35	49	130	36	58	134	34	56	126	36	53	127	36	49	137
Lincoln. . „	32	50	117	30	49	125	31	59	134	32	51	134	34	54	144
Middlesex . „	39	37	95	39	36	94	36	45	101	31	41	103	45	50	114
Monmouth. „	56	72	169	45	64	146	46	66	148	45	69	131	62	66	129
Norfolk . „	32	47	126	31	50	135	31	59	129	32	52	139	35	50	151
Northampton „	42	51	130	35	53	132	34	55	129	35	50	135	38	49	137
Northumberland„	47	57	139	35	54	160	37	57	139	36	52	134	40	48	125
Nottingham „	32	51	116	32	52	119	32	54	124	31	51	122	36	50	140
Oxford . . „	35	53	139	33	56	141	33	57	148	32	53	141	34	48	152
Rutland . „	33	50	131	33	54	161	34	62	143	33	52	137	35	53	160
Salop . . „	34	54	142	34	59	142	34	54	148	35	53	140	35	48	151
Somerset . „	39	55	139	34	53	128	35	61	140	35	58	147	38	51	159
Southampton „	34	46	104	30	46	102	31	61	128	34	56	131	38	56	147
Stafford . „	34	49	124	31	52	118	31	51	123	32	51	126	35	46	118
Suffolk . . „	34	56	129	31	54	132	33	65	134	35	59	137	37	53	153
Surrey . . „	37	42	134	35	44	129	38	49	139	38	49	129	39	53	130
Sussex . . „	31	55	126	28	52	128	32	68	142	33	58	142	34	59	156
Warwick . „	35	52	116	34	43	119	35	48	118	34	58	120	27	32	121
Westmoreland „	35	50	142	31	53	137	33	52	149	32	56	152	33	48	164
Wilts . . „	41	60	142	34	57	138	35	63	135	35	57	148	38	52	165
Worcester. „	34	46	137	31	51	129	33	53	140	31	51	127	33	46	143
York, E.Riding„ — City & Ainsty„	39	55	129	29	48	108	33	54	122	35 36	51 52	118 113	36	50	117
— N. Riding „	36	53	142	30	51	124	34	61	147	33	55	144	36	54	146
— W. Riding „	35	49	124	31	51	123	33	57	124	35	51	131	40	52	129
Summary of the Counties of England „	36	48	123	32	49	121	33	55	127	34	51	128	38	51	135

This table being drawn from the Parish Registers, and therefore known to be incomplete, is yet valuable as giving means for comparing the movement of the population at different periods. The following table, which applies only to the four years, 1839 to 1842, being taken from the returns of the Registrar-General, is more nearly in accordance with the truth, and will be useful as affording means for comparison with those returns in future years:—

COUNTIES.	1839			1840			1841			1842		
	Births.	Deaths.	Mar.	Births.	Deaths.	Mar.	Births	Deaths.	Mar.	Births.	Deaths.	Mar.
Bedford . . 1 in	26	49	110	26	44	119	28	47	125	26	45	131
Berks . . . „	28	44	127	28	42	125	28	41	127	29	42	128
Bucks . . . „	34	56	152	34	52	160	34	49	172	33	53	165
Cambridge . „	28	45	123	28	45	121	27	40	113	27	44	118
Chester . . „	33	46	156	35	42	155	33	44	168	34	45	180
Cornwall . . „	30	54	137	30	58	149	30	54	145	29	44	136
Cumberland . „	34	55	177	33	51	166	32	49	175	32	51	172
Derby . . . „	35	52	143	34	47	157	34	55	162	34	51	178
Devon . . . „	36	57	133	36	58	131	36	56	133	35	47	126
Dorset . . . „	34	57	155	34	61	149	34	58	150	34	52	158
Durham . . „	27	47	119	28	43	107	26	41	121	27	42	127
Essex . . . „	36	51	164	35	53	165	35	52	164	34	53	167
Gloucester. . „	37	56	129	37	51	121	36	47	127	36	48	134
Hereford . . „	46	59	208	44	64	205	43	58	180	41	51	176
Hertford . . „	30	51	149	30	49	173	31	46	157	29	49	169
Huntingdon . „	29	55	131	29	45	137	29	49	124	29	48	127
Kent . . . „	36	51	146	34	48	152	35	50	148	36	47	140
Lancaster . . „	25	35	104	26	32	109	26	35	108	25	36	116
Leicester . . „	29	48	123	29	40	133	29	43	129	31	43	147
Lincoln . . „	31	57	137	31	52	132	31	46	132	30	53	132
Middlesex . . „	35	40	104	34	42	104	33	40	107	32	42	109
Monmouth. . „	25	40	89	26	38	99	26	38	120	27	42	134
Norfolk . . „	35	50	147	34	51	146	33	49	148	33	48	139
Northampton . „	29	49	118	29	47	125	29	47	126	29	48	138
Northumberland „	29	48	116	28	44	115	28	44	126	28	45	144
Nottingham . „	27	48	127	28	36	126	27	41	125	28	45	129
Oxford . . . „	32	51	142	32	50	139	31	49	136	31	44	134
Rutland . . „	31	55	155	28	53	128	29	40	129	28	50	139
Salop . . . „	37	50	140	34	50	155	35	48	148	36	45	151
Somerset . . „	33	50	145	32	48	143	32	47	138	32	49	142
Southampton . „	36	54	143	36	55	135	35	53	127	34	50	126
Stafford . . „	32	53	122	31	51	142	32	48	145	32	46	160
Suffolk . . . „	32	50	135	31	53	135	31	49	132	31	51	145
Surrey . . . „	33	42	116	32	45	117	32	42	120	31	33	125
Sussex . . . „	33	56	147	35	55	145	33	54	143	33	53	150
Warwick . . „	30	47	129	30	45	142	31	46	144	31	43	147
Westmoreland „	35	49	164	34	43	163	35	52	170	34	55	162
Wilts . . . „	36	58	166	37	53	164	36	51	164	36	53	168
Worcester . . „	20	36	78	20	33	81	19	32	84	19	31	88
York, E. Riding and City . „	34	46	100	33	43	100	31	39	107	31	45	107
—— N. Riding „	37	60	153	37	53	146	35	59	155	36	54	159
—— W. Riding „	27	44	121	27	43	127	28	45	133	28	46	141
Summary of the Counties of England „	31	45	125	31	45	127	31	45	129	30	45	133

It has been usual with writers on political economy to point to the diminished proportion of marriages and births as evidence of increasing

prudence on the part of the people, who, as they become more intelligent are supposed to be less willing to undertake the charge of a family until they shall, in some measure, have secured the means of supporting one. It may, however, be doubted whether, under ordinary circumstances, this kind and degree of prudence has ever been extensively practised in any civilized community. It is true that, in years of scarcity, some temporary check may be put to the contracting of marriages; but if we consider how small the proportion of individuals in a community can be, who, even in the most prosperous times, have any certain assurance that their means of supporting a family will be continued to them in future years, we must perceive that this "preventive check" can never have any very extensive operation.

The real cause of the proportionate decrease in the numbers of marriages and births must probably be sought in the increased duration of life, which occasions the continuance in life of a larger number of persons of ages during which people are no longer liable to incur the responsibilities of parents. If, instead of calculating the proportionate numbers of marriages and births from the entire population of this country, the estimate were made with reference to that part of it which is still in the vigour of life, it appears probable that not any diminution whatever would be found in those proportionate numbers.

The Parish Registers of the Borough of Tavistock have been kept with much carefulness for a long series of years, and if the results which they exhibited had been accompanied by statements showing the number at different periods of the population, we should have the means of tracing the condition of that quarter of the kingdom as regards the movement of the population, and of thence inferring the progress in that respect of the kingdom at large through a period of 220 years. The population of the borough at each of the five enumerations was as follows:—

Years.	Population.
1801	3,420
1811	4,723
1821	5,483
1831	5,602
1841	6,272

The enumerations of the people having been taken in the middle year of the decennary periods in the table, the population as then found is assumed to be the mean of the number existing throughout the 10 years; and with this data we find that the proportions of births, marriages, and deaths in Tavistock, at the four decennary periods ending with 1836, were as follow:—

	Births.	Marriages.	Deaths.
1797 to 1806	1 in 29	1 in 90	1 in 37
1807 „ 1816	„ 29	„ 134	„ 46
1817 „ 1826	„ 35	„ 145	„ 49
1827 „ 1836	„ 37	„ 169	„ 47

This table being drawn from the Parish Registers, and therefore known to be incomplete, is yet valuable as giving means for comparing the movement of the population at different periods. The following table, which applies only to the four years, 1839 to 1842, being taken from the returns of the Registrar-General, is more nearly in accordance with the truth, and will be useful as affording means for comparison with those returns in future years:—

COUNTIES.	1839			1840			1841			1842		
	Births.	Deaths.	Mar.	Births.	Deaths.	Mar.	Births	Deaths.	Mar.	Births.	Deaths.	Mar.
Bedford . . 1 in	26	49	110	26	44	119	28	47	125	26	45	131
Berks . . . „	28	44	127	28	42	125	28	41	127	29	42	128
Bucks . . . „	34	56	152	34	52	160	34	49	172	33	53	165
Cambridge . „	28	45	123	28	45	121	27	40	113	27	44	118
Chester . . „	33	46	156	35	42	155	33	44	168	34	45	180
Cornwall . . „	30	54	137	30	58	149	30	54	145	29	44	136
Cumberland . „	34	55	177	33	51	166	32	49	175	32	51	172
Derby . . . „	35	52	143	34	47	157	34	55	162	34	51	178
Devon . . . „	36	57	133	36	58	131	36	56	133	35	47	126
Dorset . . . „	34	57	155	34	61	149	34	58	150	34	52	158
Durham . . „	27	47	119	28	43	107	26	41	121	27	42	127
Essex . . . „	36	51	164	35	53	165	35	52	164	34	53	167
Gloucester. . „	37	56	129	37	51	121	36	47	127	36	48	134
Hereford . . „	46	59	208	44	64	205	43	58	180	41	51	176
Hertford . . „	30	51	149	30	49	173	31	46	157	29	49	169
Huntingdon . „	29	55	131	29	45	137	29	49	124	29	48	127
Kent . . . „	36	51	146	34	48	152	35	50	148	36	47	140
Lancaster . . „	25	35	104	26	32	109	26	35	108	25	36	116
Leicester . . „	29	48	123	29	40	133	29	43	129	31	43	147
Lincoln . . „	31	57	137	31	52	132	31	46	132	30	53	132
Middlesex . . „	35	40	104	34	42	104	33	40	107	32	42	109
Monmouth. . „	25	40	89	26	38	99	26	38	120	27	42	134
Norfolk . . „	35	50	147	34	51	146	33	49	148	33	48	139
Northampton . „	29	49	118	29	47	125	29	47	126	29	48	138
Northumberland „	29	48	116	28	44	115	28	44	126	28	45	144
Nottingham . „	27	48	127	28	36	126	27	41	125	28	45	129
Oxford . . . „	32	51	142	32	50	139	31	49	136	31	44	134
Rutland . . „	31	55	155	28	53	128	29	40	129	28	50	139
Salop . . . „	37	50	140	34	50	155	35	48	148	36	45	151
Somerset . . „	33	50	145	32	48	143	32	47	138	32	49	142
Southampton . „	36	54	143	36	55	135	35	53	127	34	50	126
Stafford . . „	32	53	122	31	51	142	32	48	145	32	46	160
Suffolk . . . „	32	50	135	31	53	135	31	49	132	31	51	145
Surrey . . . „	33	42	116	32	45	117	32	42	120	31	33	125
Sussex . . . „	33	56	147	35	55	145	33	54	143	33	53	150
Warwick . . „	30	47	129	30	45	142	31	46	144	31	43	147
Westmoreland „	35	49	164	34	43	163	35	52	170	34	55	162
Wilts . . . „	36	58	166	37	53	164	36	51	164	36	53	168
Worcester . . „	20	36	78	20	33	81	19	32	84	19	31	88
York, E. Riding and City „	34	46	100	33	43	100	31	39	107	31	45	107
—— N. Riding „	37	60	153	37	53	146	35	59	155	36	54	159
—— W. Riding „	27	44	121	27	43	127	28	45	133	28	46	141
Summary of the Counties of England „	31	45	125	31	45	127	31	45	129	30	45	133

It has been usual with writers on political economy to point to the diminished proportion of marriages and births as evidence of increasing

Table showing the Number of Baptisms, Male and Female, the Number of Twin Births, and of Illegitimate Children, together with the Number of Marriages and Burials, in each Decennary Period from 1617 *to* 1836, *taken from the Parish Registers of Tavistock.*

Years.	Baptisms.		Twin Births.	Illegitimate.	Marriages.	Burials.
	Male.	Female.				
1617 to 1626	490	511	5	33	244	1,371
1627 „ 1636	549	517	5	17	274	761
1637 „ 1646	456	454	9	21	228	1,163
1647 „ 1656	383	339	7	5	185	723
1657 „ 1666	379	387	9	4	206	974
1667 „ 1676	405	399	4	3	171	960
1677 „ 1686	445	404	6	10	177	912
1687 „ 1696	422	406	7	24	166	978
1697 „ 1706	441	418	4	19	180	782
1707 „ 1716	332	340	6	29	178	870
1717 „ 1726	353	339	1	20	174	857
1727 „ 1736	361	381	..	26	228	873
1737 „ 1746	360	377	..	38	223	998
1747 „ 1756	357	374	..	39	228	883
1757 „ 1766	355	399	..	53	281	931
1767 „ 1776	397	361	..	41	258	713
1777 „ 1786	431	422	..	47	282	829
1787 „ 1796	476	500	2	55	278	795
1797 „ 1806	579	571	14	63	379	926
1807 „ 1816	836	767	18	71	352	1,027
1817 „ 1826	808	726	15	64	378	1,104
1827 „ 1836	763	714	13	45	330	1,191

Note.—The year 1626 was one in which the plague visited Tavistock. The deaths in that year were 575, the average yearly number in the preceding nine years having been 88. From and after 1653 the register includes all births, and is not confined to the number baptized. Up to 1680 the entries were made in black letter or German text, but after that time the mode now employed has been used.

CHAPTER II.

Neglect of the subject of Medical Statistics—Means of supplying the requisite information—Introduction of Vaccination—Mortality from Small-pox at different periods in the Metropolis—In Ireland—Mortality in St. Bartholomew's Hospital—London Hospital—St. George's Hospital—Manchester Infirmary—Liverpool Infirmary—Lock Hospital—Christ's Hospital—Proportion of Cures and Deaths in St. Luke's Hospital—Bethlem Hospital—Pauper Lunatics and Idiots in England and Wales, 1844 and 1847—Lunatics in Private Asylums—Proportions of Deaths and Cures.

IT is greatly to be regretted that, up to the present period, the subject of medical statistics in this country has been little attended to—it might almost be said, wholly neglected. In the volume published in 1829 by Dr. Bisset Hawkins, under the title of "Elements of Medical Statistics," many scattered facts bearing upon the subject have been collected together with industry and ability; but the extent of the materials available for the writer's purpose was so limited that the work cannot be considered as at all affording any satisfactory exposition of the subject. The principal value of Dr. Hawkins's labours will perhaps be found to consist in his having awakened attention to the subject, so that persons who possess the opportunity may undertake the registration of facts in a manner which will enable them at some future time to make a valuable addition to the sum of our economical knowledge.

The hospitals of this country, so numerous and so liberally supported, are among the most honourable of our national monuments. The feelings of benevolence which prompted their erection and endowment have been shared in an eminent degree by the members of the medical profession, who have always been ready to devote their time and skill to the relief of the miseries of such of their fellow-creatures as are found within their walls. These institutions are also highly esteemed as schools for surgical and medical practice; so that whenever any medical office attached to an hospital is vacant, it it usually made an object of honourable contest who shall fulfil its gratuitous duties; and by this means it most commonly happens that hospital physicians and surgeons in this country are among the most skilful practitioners of the age.

For this reason, the records of our public hospitals and infirmaries, if kept with regularity and upon any uniform plan, could not fail to afford a fair and perfect view of the progress of the curative science in this country; and it is to be hoped, that being made aware by means of Dr. Hawkins's volume, as well of the value of such information as of its present scanty amount, those who have the direction of these establish-

ments will be careful to supply the deficiency by every means in their power. With very few exceptions, hospitals in this country derive their origin and draw their support from private sources, for which reason they are under no sort of control on the part of the Government; and although there is no reason to doubt the readiness of those by whom their affairs are conducted to communicate freely whatever information may come within their reach, it is certain that there is no authority to direct any record of facts according to a prescribed form, by which means alone the full value can be given to information of that nature.

The disadvantage of our present state of ignorance upon this subject has been well stated by Dr. Hawkins in the following words:—"No one can be more deeply aware than myself of the difficulties and even dangers of the subject; of the dubious authenticity and frequent fluctuation of the necessary details; and of the precarious nature of any general principles attempted to be framed out of facts, which have, for the most part, endured the test of only a few years, and which have only recently become the object of inquiry or scrutiny. But an extensive assemblage and classification of such facts possess an historical and local value, whatsoever may be the fate of the reasonings deduced from them. Independently of the light which this study throws upon medical science, it affords the most valuable illustrations of the history, manners, and customs of mankind, and a just criterion of the progressive or retrograde movements of society."

The foregoing remarks appear necessary, in order to account for the unsatisfactory amount of information which it is possible to bring together in the present work upon this interesting branch of inquiry. Small as that amount in reality is, it is yet greater in quantity, and more precise in its details, than is to be found in any work hitherto published—a circumstance which is owing to the ready and kind assistance that has been afforded by the governors and medical officers of some of the hospitals in the metropolis and chief provincial towns.

The introduction of vaccination as a substitute for variolous inoculation is an improvement which properly belongs to the present century. The discovery, that, by thus inducing a very mild complaint, the means of escaping a most formidable disease would be secured, if not to absolute certainty, yet to such a degree as to remove from the mind all dread of its visitation, was made in 1798, but although the attention of the medical world was immediately excited in the most intense degree to the subject, it required several years of experience before the value of the discovery was fully recognised by medical practitioners, and before the public were sufficiently weaned from their previous prejudices, to avail themselves to any extent of the blessing. It was not until 1808, ten years after the first introduction of the vaccine practice, that the medical officers of the Small Pox Hospital in London ceased to inoculate

out-patients for the small-pox; and so slowly did the perfect conviction of the value of the substitute make its way in their minds, that it was not until June, 1822, almost a quarter of a century after Dr. Jenner's discovery, that the practice of inoculating was discontinued within the walls of that hospital.

Those persons who are old enough to carry back their recollection to years before this discovery was made, or who have since visited densely-peopled countries in which small-pox has prevailed, will readily admit the happy effects of vaccination. Of all the diseases to which mankind is subjected, at least in temperate regions, there is not one which, in modern times, has proved so desolating as small-pox. A reference to the following statement, compiled from the Weekly Bills of Mortality during 130 years, embracing a period both before and since the substitution of cow-pox, will exhibit at one view the extent both of the misery which the old disease caused, and of the relief which society is experiencing from the adoption of its milder substitute:—

Statement of the Total Average Mortality, and the Average Mortality arising from Small-pox, within the Weekly Bills of Mortality, at different Periods since the commencement of the Eighteenth Century; showing the proportion of Deaths from Small-pox at each Period, and the Numbers of the Population comprehended within the said District at each Decennary Enumeration in the present Century.

Period.	Total Average Mortality.	Average Mortality from Small-Pox.	Proportion of Deaths from Small-Pox in each 1000 Deaths.	Year of Census.	Population within the Bills of Mortality.
1701 to 1710	21,110	1,372	65		
1711 „ 1720	23,826	2,123	89		
1721 „ 1730	27,361	2,257	82		
1731 „ 1740	26,047	1,978	76		
1741 „ 1750	26,060	2,002	77		
1751 „ 1760	20,849	1,957	94		
1770 „ 1779	21,591	2,204	102		
1780 „ 1789	19,517	1,712	88		
1790 „ 1799	19,177	1,768	92		
1800 „ 1809	18,891	1,374	73	1801	746,953
1810 „ 1819	19,061	833	43	1811	855,626
1820 „ 1829	20,680	715	35	1821	1,011,951
1830 „ 1836	24,356	610	25	1831	1,180,075

It is sufficiently remarkable that in the district comprised within the Weekly Bills of Mortality, the deaths were greater in the year 1800 than they had been in any one year during the century, with the exception of 1740, and that up to 1801 inclusive, the burials were, scarcely with an exception, in excess over the births; while, on the contrary, since that period, there has occurred only one year (1808) in which the opposite condition has not been experienced. The annual average number of births in the metropolis during the ten years from 1791 to 1800 was 22,605, and the annual average of burials 24,270, being in the propor-

tion of 107 burials to 100 births. In the ten years from 1811 to 1820, the annual average of births was 28,489, and of deaths 23,331, reducing the proportion of deaths to 82 for 100 births. But this does not offer an accurate gauge of the comparative mortality of the two periods, because there has, during the last 30 or 40 years, arisen a practice constantly increasing among persons carrying on business in London to reside with their families beyond the limit embraced by the Bills of Mortality. There, consequently, their children are born; but many among them, the mortal remains of whose ancestors are deposited in burial-grounds within that limit, still use those receptacles as the last resting-places for themselves and their families, for which reason the births are diminished in a greater proportion than the burials. The cause here assigned has operated in a much greater degree since 1820 than it did previous to that date, and it would be unprofitable, therefore, to pursue the inquiry to a later period.

The preceding statement has been derived from the Yearly Bills of Mortality, as compiled by the Society of Parish Clerks; and, although entitled to be received with some degree of confidence, does not furnish so correct a result as we have now the opportunity of obtaining through the office of the Registrar-General. The following figures, which are taken from the yearly reports of that department, apply to the whole metropolitan district, the population of which in 1841 was 1,915,104.

Years.	Total Deaths in the Year.	Mortality from Small-Pox.	Proportion in each 1000 Deaths.
1838	53,546	3,817	71
1839	46,100	634	14
1840	47,156	1,240	26
1841	46,292	1,068	23
1842	46,242	367	8
1843	49,477	439	9
1844	51,109	1,804	35
1845	48,318	909	19
1846	49,450	257	5
1847	60,442	955	16
Average	49,813	1,149	23

It thus appears, that although of the above 10 years 2 were years in which the small-pox was experienced with unusual virulence, the average yearly mortality by that once fearful disease has been reduced to 1 in 1,680 of the population.

It was at one time sanguinely expected that vaccination would speedily have eradicated the scourge for which it has, in a great degree, provided a mild and safe substitute. This expectation has not hitherto been accomplished; and it appears doubtful whether vaccination will ever be successfully applied to such an extent. Inoculation has been almost entirely discontinued, so that medical men now commonly refuse to perform the operation when applied to for that purpose. Still, from time to

time, small-pox appears, and, up to the present period, the applications for admission into the Small-pox Hospital on the part of patients to whom the disease has been casually communicated are as numerous as they have ever been during any part of the last fifty years. In the course of that term the number so admitted has been 10,977, of whom the large number of 2,981 have died, being in the proportion of 27 to each 100 patients. If we divide the whole term into decennary periods, we shall, however, find that the disease has of late put on a milder and less fatal form than that in which its visitations were made at the commencement of the time to which our information reaches, and if we examine the result of the cases in the five years from 1794 to 1798, when Dr. Jenner's discovery was made, it will be seen that the mortality was then in a higher ratio than has since been experienced, the number of deaths having been 371 out of 1,156 cases, or in the proportion of 32·1 to 100.

Years.	Admitted.	Died.	Proportion of Deaths.
1794 to 1803	2,007	614	30·5 in 100.
1804 „ 1813	1,330	410	30·8 „
1814 „ 1823	1,336	389	29·1 „
1824 „ 1834	2,810	759	27· „
1835 „ 1844	3,494	809	23·1 „
	10,977	2,981	27·1 „

The favourable result in the more recent years can hardly have been accidental, for accidents of this nature do not occur in regular progression through so long a period as fifty years, and the statement above given fully bears out the opinion expressed in regard to the comparative mildness of the disorder as it now exists, and the degree in which medical treatment has been successfully applied in arresting its ravages.

The Report of the Census Commissioners for Ireland in 1841 contains an elaborate paper by Mr. Wilde, upon the deaths occurring in that part of the United Kingdom, during the 10 years ending 6 June, 1841, from which the following table has been compiled, showing the number of deaths from small-pox, and the proportion which they bore to the total deaths in each years.

Years.	Total.	Mortality from Small-Pox.	Proportion of Deaths from Small-Pox in each 1000 Deaths.
1831-2	148,539	7,189	48
1833	94,713	4,329	45
1834	96,623	4,852	50
1835	101,961	5,809	56
1836	123,114	6,465	52
1837	141,688	7,102	50
1838	130,222	7,150	55
1839	140,239	6,704	47
1840	141,536	6,254	44
(6 months) 1841	68,739	2,152	31
Total	1,187,374	58,006	48

The deaths from small-pox during the same period in the city of Dublin, amounted to 1,875, the total deaths having been 49,580, show-

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and in the concluding five years of the series, the average has been only 7·28 per cent.; whereas, in other general hospitals of this metropolis, which enjoy the advantage of medical and surgical skill on the part of their officers in nowise inferior to that of the officers of St. Bartholomew's, the average rate of mortality has, in the period of fifteen years, exceeded 9¼ per cent., being in the proportion of nearly three deaths to two. On the other hand, the mortality during the same period in the Infirmary of Liverpool has been even smaller than that of St. Bartholomew's Hospital: the average being only 6·91 per cent.

Years.	London Hospital.			St. George's Hospital.			Manchester Infirmary.			Liverpool Infirmary.		
	Patients.	Deaths.	Proportion of Deaths per Cent.	Patients.	Deaths.	Proportion of Deaths per Cent.	Patients.	Deaths.	Proportion of Deaths per Cent.	Patients.	Deaths.	Proportion of Deaths per Cent.
1829	2,214	263	11·87	..	..	..	..	..	..	..	..	..
1830	2,185	253	11·58	..	..	..	1,731	109	6·29	2,196	105	4·80
1831	2,272	267	11·75	1,812	225	12·41	1,778	113	6·35	2,028	111	5·47
1832	2,511	310	12·34	1,875	209	11·14	1,724	138	8·01	1,975	105	5·31
1833	2,517	246	9·77	1,826	196	10·73	1,731	123	7·10	2,015	118	5·85
1834	..	..	..	1,954	218	11·15	1,852	149	8·04	1,718	114	6·63
	11,697	1,339	11·44	7,467	848	11·35	8,816	632	7·16	9,922	553	5·57
1835	2,735	277	10·12	2,133	227	10·64	1,900	130	6·84	1,855	121	6·52
1836	2,815	309	10·97	2,475	226	9·13	1,948	158	8·11	1,863	162	8·69
1837	2,961	418	14·11	2,535	241	9·50	1,890	208	11·	1,691	124	7·33
1838	2,987	371	12·42	2,984	265	8·88	1,926	243	12·62	2,023	133	6·57
1839	3,247	305	9·39	3,099	312	10·07	1,926	245	12·71	2,125	164	7·71
	14,745	1,680	11·39	13,226	1,271	9·61	9,590	984	10·26	9,557	704	7·36
1840	3,339	296	8·86	3,304	244	7·38	1,781	227	12·74	2,200	184	8·36
1841	3,308	331	10·	3,296	277	8·40	1,814	215	11·85	1,971	135	6·84
1842	3,810	280	7·88	3,294	265	8·04	1,748	142	8·12	1,912	160	8·36
1843	3,801	244	6·91	3,440	235	6·83	1,790	189	10·55	1,844	139	7·53
1844	3,801	224	6·06	3,461	204	5·89	1,810	170	9·34	1,963	155	7·81
	17,059	1,375	7·89	16,795	1,225	7·29	8,952	943	10·53	9,910	773	7·80
1845	3,574	293	8·20	1,817	219	12·05						
1846	3,494	295	8·44	1,762	188	10·67						
1847	3,640	276	7·58	1,548	174	11·24						
1848	3,836	263	7·39	1,547	153	9·89						
1849	3,643	267	7·33	1,706	196	11·49						
	18,207	1,394	7·78	8,380	930	11·09						

The large proportionate number of deaths in the Manchester Infirmary

one of the best-regulated hospitals in the kingdom, is fully accounted for by the severity of the accidents to which the labouring population of that town are liable. From this cause it happened, that out of 87 deaths that occurred in the infirmary in the second half of 1844, 54 persons died within 24 hours after their admission.

An unfavourable opinion might be at first suggested by the following statement of the number of patients who have died, and of those who have been cured, at the Lock Hospital, during each decennary period of the present century. It must be remarked, however, that the plans pursued in this hospital, established for the treatment of one particular disease, have undergone considerable alteration during this time; and that although the proportion of fatal cases occurring in the hospital may have increased through the abandonment of a course of practice which more speedily removed the specific disease, and occasioned the discharge of the patients from the hospital, there is good reason for believing that the remedies formerly applied with apparently such good results, impaired the constitution, and produced a tendency to various chronic disorders, which, in many cases, tended to shorten life, and in yet more rendered existence miserable.

Years.	Admitted.	Died.	Cured.	Centesimal Proportion.	
				Deaths.	Cures.
1801 to 1810	4,968	57	3,558	1·147	71·6
1811 „ 1820	5,392	38	4,001	0·704	74·2
1821 „ 1830	5,354	47	3,727	0·877	69·6
1831 „ 1840	5,289	50	4,512	0·945	85·3
1841 „ 1844	1,852	3	1,739	0·162	93·9
(four years.) 1845 „ 1849	3,481	3	2,804	0·086	80·5
	26,336	198	20,341	0·740	77·2

Among the tables compiled by Dr. Mitchell, which are appended to the Supplementary Report of the Factory Commissioners, is a return of the number of children in Christ's Hospital, and of the number of deaths that have occurred, in each year, for twenty years from 1813 to 1833. It will be seen from this return how exceedingly small the rate of mortality has been in the establishment throughout that period. This circumstance is highly creditable to the institution, and shows how very instrumental in preserving life during the years of childhood are "substantial clothing, an abundance of wholesome food, good lodging, healthful exercise in the hours allowed for recreation, and immediate attention on the first appearance of sickness under the care of skilful medical men." These are favourable circumstances, which have attended the institution in an equal degree throughout the period embraced in the table, and we must therefore seek for some other reason to account for the yet more gratifying fact, that, small as the rate of mortality has

been during the whole twenty years, there has been a constant tendency to its decrease, so that in the latter years of the series still fewer deaths have occurred than did during the earlier years:—

Year to Easter.	Number of Children.	Deaths.	Year to Easter.	Number of Children.	Deaths.
1814	1,019	7	1824	1,046	14
1815	1,010	6	1825	1,070	4
1816	1,031	14	1826	1,085	10
1817	1,033	11	1827	1,107	9
1818	1,037	13	1828	1,104	3
	5,130	51		5,412	40
1819	1,038	12	1829	1,110	12
1820	1,052	6	1830	1,126	7
1821	1,029	11	1831	1,145	5
1822	1,046	9	1832	1,156	7
1823	1,028	6	1833	1,133	5
	5,193	44		5,670	36

It thus appears, that in the first five years, viz., from 1814 to 1818, the annual mortality was 1 in 100; that in the next five years, from 1819 to 1823, the rate was only 1 in 118; that in the five years from 1824 to 1828, it was further diminished to 1 in 135; and that in the last quinquennial period from 1829 to 1833, the annual mortality was no greater than 1 in 157½ of the children.

During the whole period embraced by the table, the children in Christ's Hospital continued under the same management as regards clothing, lodging, and, in fact, every principal circumstance which apparently could exert any influence upon the rate of their mortality, with the exception of some little change of diet in the partial substitution of vegetable for animal food. The length of time and the numbers embraced by the return, forbid the belief that the favourable result has been the effect of accident; and if we consider that the originally low rate of mortality has been rendered more and more favourable in each succeeding five years, it is hardly possible to account for the circumstance by any other supposition than that of an advance towards a more rational mode of discipline, both moral and medical, than was practised in former periods.

The favourable circumstances shown by Dr. Mitchell to exist in this institution during 20 years to 1833, are still experienced, as will be seen from the following figures:—

Year to Easter.	Number of Children.	Deaths.	Year to Easter.	Number of Children.	Deaths.
1834	1,149	12	1840	1,[illegible]	[illegible]
1835	1,163	13	1841	1,[illegible]	[illegible]
1836	1,121	8	1842	1,[illegible]	[illegible]
1837	1,126	9	1843	1,[illegible]	[illegible]
1838	1,134	8	1844	1,[illegible]	[illegible]
1839	1,150	8	1845	1,[illegible]	[illegible]
	6,843	58		7,[illegible]	[illegible]

In 1840 several deaths occurred from measles and scarlet fever, which latter disease was also very fatal in the year ending Easter 1845.

The following abstract is made from a very interesting statement furnished to Her Majesty's Government by the officers of St. Luke's Hospital for Lunatics. This abstract presents, upon the whole, a consolatory view of the progress of science in the treatment of disease,

PATIENTS DEEMED CURABLE.

PERIODS.	MALES.					FEMALES.				
	Admitted, including the Patients remaining at the commencement of each Period.	Cured.	Died.	Centesimal Proportion. Cured.	Centesimal Proportion. Died.	Admitted, including the Patients remaining at the commencement of each Period.	Cured.	Died.	Centesimal Proportion. Cured.	Centesimal Proportion. Died.
1751 to 1760	225	100	16	44·4	7·1	510	249	24	48·8	4·7
1761 „ 1770	355	133	28	37·4	7·9	668	284	49	42·5	7·3
1771 „ 1780	425	183	30	43·0	7·0	808	326	23	40·3	2·8
1781 „ 1790	554	193	71	34·8	13·0	904	355	39	39·2	4·3
1791 „ 1800	967	319	146	33·0	15·1	1,496	630	92	42·1	6·1
1801 „ 1810	1,234	402	218	32·5	17·6	1,700	717	96	42·1	5·6
1811 „ 1820	1,260	344	133	27·4	10·5	1,558	604	72	38·7	4·6
1821 „ 1830	1,083	360	58	33·2	5·3	1,327	548	48	41·3	3·6
1831 „ 1834	356	147	18	41·3	5·0	497	223	26	44·8	5·2
1835 „ 1844	856	389	66	45·4	7·7	1,270	673	63	53·0	4·9
	Total No. admitted, 6,874	2,570	784	37·3	11·4	Total No. admitted, 10,052	4,609	532	45·8	5·3

PATIENTS DEEMED INCURABLE.

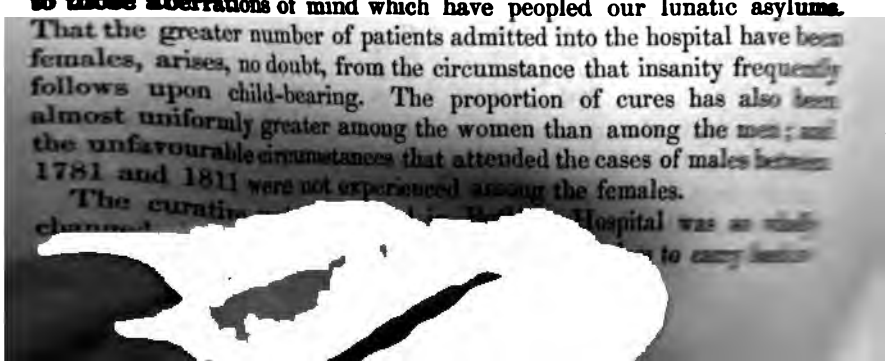
1754 to 1760	15	2	4	13·3	26·6	39	2	5	5·1	12·8
1761 „ 1770	17	..	3	..	17·6	31	..	6	..	19·3
1771 „ 1780	15	..	2	..	13·3	29	1	9	3·4	31·0
1781 „ 1790	37	..	9	..	24·3	56	1	5	1·8	9·0
1791 „ 1800	77	1	22	1·3	28·5	117	4	45	3·4	38·4
1801 „ 1810	70	..	21	..	30·0	93	2	29	2·1	31·1
1811 „ 1820	79	..	31	..	39·2	116	..	47	..	40·5
1821 „ 1830	84	..	32	..	38·1	99	3	40	3·0	40·4
1831 „ 1834	70	..	23	..	32·8	78	..	19	..	24·3
1835 „ 1844	79	2	28	2·5	35·4	95	2	27	2·1	28·4
	Total No. admitted, 256	5	175	1·9	68·3	Total No. admitted, 358	15	232	4·2	64·8

under the most distressing form in which it visits our race. The table has been made in two divisions—one of patients deemed curable, the other of patients deemed incurable. The numbers embraced in the last category are too few to admit of any reasoning in regard to them, but this objection does not apply to the table of curable patients. The period embraced by the table is 94 years, extending from 1751, when the hospital was founded, to 1844, during which time 17,540 patients were admitted, of whom 16,926 were deemed curable. Of this number 7179 have been cured, and 1316 have died—the average centesimal

proportion of cures being, among the males, 37·3, and among the females, 45·8; while the deaths have been 11·4 among males, and 5·3 among females.

Some points in the foregoing table require explanation. It will be seen that in the 30 years which occurred between 1781 and 1810 a considerable decrease in the number of cures and an increase in the number of deaths were experienced among the male patients, while no such irregularity appears in the case of the females. In the 10 years between 1801 and 1811 the male cures, which between 1771 and 1780 had been 43 per cent., were diminished to 32½ per cent.; and the deaths, which in the earlier period had been no more than 7 per cent., were increased to 17¼ per cent. On referring this subject to the medical officers of the hospital, we received the following explanation:—"The increase of deaths among the males during the period between 1781 and 1800 is attributed to the relaxation of the rule of not admitting any patient who appeared to be in too weak a state of bodily health to take medicines proper for their lunacy, or requiring the attendance of a nurse, and which rule, subsequent to 1810, was as strictly enforced as it had formerly been up to 1781."

The proportion of cures in the first and last decennary periods were more favourable than in any other period of the like duration. The favourable proportions fell in the 20 years following 1760, and then occurred the relaxation as to the admission of patients which has already been explained. Subsequently to 1811 a more favourable result has been obtained, and from 1820 this improvement has been experienced in a still greater degree. On this subject, the gentlemen to whose explanations reference has already been made, say,—"It is probable that the decreased number of deaths since 1810 may be attributed to a growing improvement among the lower classes as regards their personal habits, and to an increased degree of skill in the treatment of the insane by the medical officers." These causes are each of them of a gratifying nature. Let us hope, as regards the first mentioned, that through the continued intellectual and moral advancement of the labouring classes, they may be weaned from those habits of intemperance which hitherto have formed their chief reproach, and which but too frequently have led to those aberrations of mind which have peopled our lunatic asylums.


That the greater number of patients admitted into the hospital have been females, arises, no doubt, from the circumstance that insanity frequently follows upon child-bearing. The proportion of cures has also been almost uniformly greater among the women than among the men; and the unfavourable circumstances that attended the cases of males between 1781 and 1811 were not experienced among the females.

an earlier period any inquiry concerning the result of the cases admitted into the establishment. The following table contains a statement for each year, from 1820 to 1849, inclusive :—

Years.	MALES.			Centesimal proportions in quinquennial periods, including the number remaining at the beginning of each period.		FEMALES.			Centesimal proportions in quinquennial periods, including the number remaining at the beginning of each period.	
	Admitted, including the Patients remaining at the commencement of the first year.	Cured.	Died.	Cured.	Died.	Admitted, including the Patients remaining at the commencement of the first year.	Cured.	Died.	Cured.	Died.
1820	167	28	7			180	37	6		
1821	65	25	2			85	23	7		
1822	58	23	5	29·8	5·	114	49	8	34·8	5·9
1823	60	24	4			98	52	4		
1824	69	25	3			94	38	9		
1825	77	31	9			108	43	7		
1826	69	26	1			99	47	8		
1827	68	26	11	37·1	7·1	88	40	4	42·2	4·5
1828	89	44	6			120	68	3		
1829	81	56	8			119	73	7		
1830	87	39	5			123	76	8		
1831	87	35	10			137	63	3		
1832	63	23	5	33·7	6·6	101	71	3	46·2	3·2
1833	64	25	4			127	59	7		
1834	107	50	10			118	65	2		
1835	114	40	9			148	72	11		
1836	121	51	11			149	87	13		
1837	127	60	13	35·79	7·51	184	97	14	48·07	6·03
1838	126	55	10			169	120	10		
1839	122	56	12			178	86	10		
1840	152	69	12			198	111	11		
1841	117	61	23			174	99	15		
1842	140	62	15	38·	9·22	204	108	7	45·49	5·60
1843	119	57	13			177	105	12		
1844	133	60	12			172	72	16		
1845	122	63	12			211	120	11		
1846	142	67	5			171	96	10		
1847	138	73	11	40·52	5·45	191	112	11	44·80	5·11
1848	140	84	10			190	83	13		
1849	150	70	10			194	106	14		

Reckoning males and females together, the centesimal proportions of cures and deaths in the quinquennial periods have been—

Years.	Cured.	Died.
1820 to 1824	32·8	5·5
1825 „ 1829	40·	5·6
1830 „ 1834	41·	4·6
1835 „ 1839	42·76	6·67
1840 „ 1844	42·29	7·15
1845 „ 1849	42·94	2·25

All patients who are admitted on the curable establishment of Bethlem Hospital, and who are not discharged cured or otherwise within twelve months from the date of their admission, are discharged at the end of that time, unless there be a prospect of their cure, in which case they are retained in the hospital.

The result of the 7595 patients admitted into Bethlem Hospital during the 30 years from 1820 to 1849, distinguishing the sexes, and dividing the patients into the three classes of curable, incurable, and criminal lunatics, will be seen in the following table:—

	From 1820 to 1849 inclusive.					
	Curables.			Incurables.		
	Males.	Females.	Total.	Males.	Females.	Total.
Remained in hospital 1st January, 1820, including those out on leave of absence	29	52	81	28	41	69
Admitted	2,779	4,163	6,942	96	101	197
	2,808	4,215	7,023	124	142	266
Discharged:—						
Cured	1,343	2,226	3,569	7	24	31
Uncured	632	1,127	1,759	..	4	4
By request of friends	69	89	158	24	19	43
Disqualified cases	504	404	908	6	..	6
Convalescent and no report	25	50	75	..	1	1
Escaped	..	..	..	1	..	1
Died	155	190	345	46	58	104
Remaining 31st December, 1849:—						
Out on leave	3	5	8	..	..	..
In hospital	77	124	201	40	36	76
	2,808	4,215	7,023	124	142	266

	From 1820 to 1849 inclusive.					
	Criminals.			Total.		
	Males.	Females.	Total.	Males.	Females.	Total.
Remained in hospital 1st January, 1820, including those out on leave of absence	41	9	50	98	102	200
Admitted	201	55	256	3,076	4,319	7,395
	242	64	306	3,174	4,421	7,595
Discharged:—						
Cured	58	28	86	1,408	2,278	3,686
Uncured	3	..	3	635	1,131	1,766
By request of friends	..	..	..	93	108	201
Disqualified cases	..	..	..	510	404	914
Convalescent, and no report	..	..	..	25	51	76
Removed by order of Secretary of State	20	..	20	20	..	20
Escaped	1	1	2	2	1	3
Died	67	16	83	268	264	532
Remaining 31st December, 1844:—						
Out on leave	..	..	..	3	5	8
In hospital	93	19	112	210	179	389
	242	64	306	3,174	4,421	7,595

In the year 1844 there were discharged 260 patients. The length of time in which they had remained in the hospital, as well as the circum-

stances under which they were discharged, are shown in the following table :—

Time in Hospital.	Cured.			By request of Friends.			Disqualified Cases.			Died.			Uncured.		
	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.
1 month . .	..	..	..	1	1	2	5	1	6	3	4	7	..	..	..
2 months . .	6	5	11	1	..	1	2	2	4	2	2	4	..	..	..
3 „ . .	17	12	29	..	1	1	3	3	6	1	1	2	..	..	..
4 „ . .	9	11	20	1	..	1	1	..	1	..	2	2	..	..	..
5 „ . .	10	10	20	..	..	..	..	1	1	..	2	2	..	..	..
6 „ . .	6	7	13	1	..	1	2	1	3	..	1	1	..	..	..
7 „ . .	..	5	5	..	..	..	..	..	..	..	..	..	..	..	..
8 „ . .	1	7	8	..	..	..	..	1	1	..	..	..	..	..	..
9 „ . .	4	1	5	..	2	2	2	1	3	..	..	..	..	..	..
10 „ . .	..	2	2	1	..	1	..	..	..	..	..	..	..	..	..
11 „ . .	..	2	2	..	1	1	..	1	1	..	..	..	..	..	..
12 „ . .	5	8	13	1	..	1	..	..	..	..	1	1	15	31	46
13 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
14 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
15 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	6	8	14
16 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	..	6	6
17 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	2	2	4
19 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
20 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22 „ . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23 and upwards	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
	58	70	128	6	5	11	15	11	26	6	13	19	26	50	76

The number of lunatics and idiots chargeable to the parishes of England and Wales, in the month of August, 1844, was ascertained to be as follows :—

	LUNATICS.			IDIOTS.		
	Males.	Females.	Total.	Males.	Females.	Total.
In 589 Unions . . .	3,356	4,294	7,650	3,636	4,066	7,702
Under Local Acts . .	443	643	1,086	229	229	458
Other places	103	134	237	105	117	222
	3,902	5,071	8,973	3,970	4,412	8,382

Of the above 17,355 persons, there were maintained—

	Males.	Females.	Total.
In County Lunatic Asylums	2,003	2,221	4,224
In Licensed Houses	1,319	1,629	2,948
In Union Workhouses	2,088	2,592	4,680
With their friends, or elsewhere	2,254	2,790	5,044
In other places, not in union	208	251	459
	7,872	9,483	17,355

Their ages were—

Not exceeding 5 years	8
5 to 10 years	56
10 „ 20 „	978
20 „ 30 „	3,335
30 „ 40 „	3,733
40 „ 50 „	3,612
50 „ 60 „	2,722
60 „ 70 „	1,727
70 and upwards	725
	16,896
The ages not ascertained of those estimated for other places not in union	459
	17,355

If to those chargeable to parishes we add 4072 private patients, viz., 2161 males and 1911 females, we have a total of 21,427 individuals in England and Wales declared to be of unsound mind, or 1 in 775 of the population.

A further report of the Commissioners in Lunacy was made to the Lord Chancellor in June, 1847, in which was given a summary of pauper lunatics and idiots in England and Wales on the 1st January of that year, viz. :—

	Males.	Females.	Total.
Lunatics	4,499	5,930	10,429
Idiots	3,637	3,999	7,636
	8,136	9,929	18,065

Of the above there were—

	Males.	Females.	Total.
In County Lunatic Asylums and Hospitals	2,397	2,745	5,142
In Licensed Houses	1,657	2,104	3,761
In Union Workhouses	2,058	2,573	4,631
With their friends, or elsewhere	1,965	2,453	4,418
In other places, not in union: Lunatics	37	40	77
In other places, not in union: Idiots	22	14	36
	8,136	9,929	18,065

Their ages were—

Not exceeding 5 years	4
From 5 to 10 years	51
„ 10 „ 20 „	916
„ 20 „ 30 „	3,504
„ 30 „ 40 „	4,087
„ 40 „ 50 „	3,927
„ 50 „ 60 „	2,963
„ 60 „ 70 „	1,784
„ 70 and upwards	776
	17,952
The ages not ascertained of those in places not in union	113
	18,065

The total number of persons of unsound mind in England and Wales at the above date was 26,516, thus distributed:—

1. In County Asylums, Hospitals, and Licensed Houses, subjected to the visitations of the Commissioners	13,226
2. In Bethlem, and in Naval and Military Hospitals not subjected to such visitations	606
3. Paupers in Union Workhouses and places under local Acts	8,986
4. Paupers in Gilbert Unions, and other places not in union	176
5. Single Patients found lunatic by inquisition	307
6. Single Patients in private houses, in charge of persons receiving profits	130
7. Excess of Pauper Patients in Workhouses, &c.	3,053
8. Criminals in Gaols	32
	26,516

The per centage proportions of cures and deaths occurring in county and other public lunatic asylums, during the five years 1840 to 1844, were as follows:—

County Asylum.	Yearly Cures.	Yearly Deaths.	County Asylum.	Yearly Cures.	Yearly Deaths.
Bedford	15·9	10·5	Suffolk	16·1	10·8
Chester	30·1	11·8	York, West Riding	17·1	13·6
Cornwall	13·4	7·9	Bristol, St. Peter's Hospital	20·3	19·7
Dorset	15·6	12·2			
Gloucester	31·7	10·7			
Kent	7·5	10·7	Exeter	47·6	12·4
Lancaster	16·6	13·2	Lincoln	17·9	15·
Leicester	36·1	11·3	Liverpool	62·7	16·7
Middlesex	6·7	9·1	Northampton	30·3	14·
Norfolk	13·3	19·1	Wameford, near Oxford	22·4	7·5
Nottingham	24·6	9·2	York Asylum	7·9	6·8
Stafford	21·	13·7	Friend's Retreat, York	8·2	5·7

The return from the Glasgow Lunatic Asylum, during 27 years from 1814 to 1840, show the following results:—

Years.	Admitted.	Cured.	Relieved.	Discharged.	Died.	Proportion of Deaths.*
1814 to 1818	387	151	85	32	17	..
1819 „ 1823	427	176	94	90	55	10·39
1824 „ 1828	400	172	105	65	49	9·53
1829 „ 1833	462	217	132	37	60	10·25
1834 „ 1838	534	252	130	64	70	10·40
1839 & 1840	280	144	55	28	27	6·17

* Including the number remaining in the Asylum at the beginning of each period.

CHAPTER III.

OCCUPATIONS OF THE PEOPLE.

Change in relative proportions of Agriculturists, Traders, &c., in England, Wales, Scotland, and Great Britain—Employment of Adult Males in the United Kingdom in 1831—Occupations of Population of Great Britain, 1841—Proportions in each County of England, 1811, 1821, 1831, and 1841—Numerical Order of Counties relatively to each other at different periods—Division of Agricultural Population—Occupiers—Labourers—Great Britain and Ireland—Proportions employed in 1831 and 1841 in raising food—Advantage of knowing the proportions into which Population is divided—Failure of attempts to ascertain this in the earlier enumerations—Result of the attempt in 1841—Excise Licenses granted for exercising certain branches of business—Division of Employments in Ireland, 1841—Domestic Servants in United Kingdom—Employment of Adult Males in United Kingdom in 1841—Employment in Textile Manufactures—In Factories—In Mines—In manufacture of Metals—Occupations of People in France—Classification of Land-owners—Division of the Soil.

A CHANGE has for some time been going forward in regard to the relative proportions of the inhabitants of this country who are employed in agricultural pursuits, or in trade, manufactures, &c.

The following table will show the variations of this kind, as exhibited in Great Britain by the three decennary enumerations preceding that of 1841:—

Comparative Statement of the Numbers and Occupations of Families in England, Wales, and Scotland, in the Years 1811, 1821, *and* 1831, *according to the Population Returns of those Years respectively; showing also the Proportions of each Class in Centesimal Parts.*

	At the end of May in each Year.	Total Families.	Employed in Agriculture.	Employed in Trade, Manufactures, &c.	All other Families.	Centesimal Parts.			
						Agriculture.	Trade, &c.	Others.	Total.
England	1811	2,012,391	697,353	923,588	391,450	34·7	45·9	19·4	100
	1821	2,346,717	773,732	1,118,295	454,690	33·	47·6	19·4	100
	1831	2,745,336	761,348	1,182,912	801,076	27·7	43·1	29·2	100
Wales	1811	129,756	72,846	36,044	20,866	56·2	27·7	16·1	100
	1821	146,706	74,225	41,680	30,801	50·6	28·5	20·9	100
	1831	166,538	73,195	44,702	48,641	43·9	26·9	29·2	100
Scotland	1811	402,068	125,799	169,417	106,552	31·3	42·1	26·6	100
	1821	447,960	130,699	190,264	126,997	29·2	42·5	28·3	100
	1831	502,301	126,591	207,259	168,451	25·2	41·3	33·5	100
Great Britain	1811	2,544,215	895,998	1,129,049	518,868	35·2	44·4	20·4	100
	1821	2,941,383	978,656	1,350,239	612,488	33·2	45·9	20·9	100
	1831	3,414,175	961,134	1,434,873	1,018,168	28·2	42·0	29·8	100

No comparison can be strictly made between the proportions shown by the foregoing table, and the result of the census of 1841, when the occupations of the people were ascertained, not according to the number of families, but of individuals. We are enabled, however, to compare the two periods, with reference to the occupations of males, 20 years of age and upwards, living in 1831 and 1841, and the result cannot be materially different from that which would have been shown had the division been made as before into families.

England and Wales.	1831	1841
Employed in agriculture	31·69	25·65
„ in trade, manufactures, &c.	39·11	43·08
„ otherwise	29·20	31·27
	100·	100·
Scotland.		
Employed in agriculture	30·40	27·88
„ in trade, &c.	43·	46·60
„ otherwise	26·60	25·52
	100·	100·
Great Britain.		
Employed in agriculture	31·51	25·93
„ in trade, &c.	39·65	43·53
„ otherwise	28·84	30·54
	100·	100·

The circumstance which most requires to be noticed in these statements is the decrease in the relative number of families employed in agricultural pursuits. In the course of 30 years the centesimal proportion of such families has fallen from 35·2 to 25·9, showing that the quantity of food for the production of which the labour of seven families was formerly employed, is now produced by the labour of five families. This is a fact of considerable importance, if considered with reference to another interesting question, that of the capability of the country to continue its present onward course with respect to manufactures, notwithstanding the physical impossibility under which it is placed, of adding in any material degree to the extent of soil whence the greater quantity of food then needed must be derived.

The alteration indicated by the foregoing tables will appear in a more striking point of view, if a calculation be made of the positive increase in number of the families in each of the three classes, during the 20 years 1811 to 1831. It will then be seen that, while the increase in the number of families altogether was after the rate of 34 per cent., the addition to those of the agricultural class has been only 7¼ per cent., those of the trading and manufacturing class having received an accession to their

numbers of 27 per cent., and those of all other classes having been in the same time very nearly doubled in number.

The further subdivision of the population, as relating to males 20 years of age and upwards, which was made in 1831, somewhat varied the centesimal proportions, as will appear from the following abstract:—

	Males 20 Years of Age.	AGRICULTURE.			TRADE, MANUFACTURES, &c.		OTHER CLASSES.			
		Occupiers employing Labourers.	Occupiers not employing Labourers.	Labourers employed in Agriculture.	Employed in manufacture, or in making manufacturing machinery.	Employed in retail trade, or in handicraft as Masters or Workmen.	Capitalists, Bankers, Professional, and other Educated Men.	Labourers employed in labour not Agricultural.	Other Males Twenty Years of age, except Servants.	Male Servants Twenty Years of age, and upwards.
England . .	3,199,984	141,460	94,883	744,407	314,106	964,177	179,983	500,950	189,389	70,629
Wales . . .	194,706	19,738	19,966	55,468	6,218	43,226	5,204	31,571	11,180	2,145
Scotland . .	549,821	25,887	53,966	87,292	83,993	152,464	29,203	76,191	34,930	5,895
Great Britain	3,944,511	187,075	168,815	887,167	404,317	1,159,867	214,390	608,712	235,499	78,669
		1,243,057			1,564,184		1,137,270			
		or			or		or			
		31·5			39·7		28·8			
		Centesimal Parts.			Centesimal Parts.		Centesimal Parts.			
Ireland . .	1,867,765	95,339	564,274	567,441	25,746	298,838	61,514	89,876	110,595	54,142
		1,227,054			324,584		316,127			
		or			or		or			
		65·7			17·4		16·9			
		Centesimal Parts.			Centesimal Parts.		Centesimal Parts.			

It will be seen that the proportion of males 20 years of age and upwards is greater in families employed in agriculture than in the remaining classes or divisions, and it may be inferred that the population does not increase so rapidly in proportion to its numbers among agricultural families as among the remaining portions of the people—an effect which may probably be owing in some degree to greater longevity, caused by the superior healthfulness of the country; still more, perhaps, to the less exciting nature of country employments which occasion less wear and tear to the animal frame than is experienced in towns, where the interests of men bring them more directly into collision, and where, if the satisfaction attendant upon success is more attainable, the harassings and disappointments of life are more frequently experienced; but in addition to those causes comes the fact, that there is a constant tendency of the rural population to seek employment in towns, so soon as that period of life is attained at which occupation is assumed, while there is no tendency on the part of young persons born in towns to seek employment in country districts.

The following more elaborate table of the occupations of the population of Great Britain, as ascertained in 1841, has been compiled from the Reports of the Census Commissioners. It affords the best abstract that has hitherto been attainable upon this important branch of political arithmetic.—*See* pp. 57, 58.

It may be interesting to know the proportions in regard to occupations into which the population of each county in England is divided, and the variations in this respect which each has undergone during the thirty years that have elapsed between 1811 and 1841. For this purpose the following two tables (pp. 59 and 60) have been constructed. The first of them shows the centesimal proportion which each class bore to the other two classes at the several enumerations of 1811, 1821, 1831, and 1841; while the second table shows the numerical order in which each county stood at those periods relatively to the other counties. For this latter purpose the population has been divided into only two classes, viz.—agriculturists and others. The reason for this classification will be at once apparent on inspection of the first table. The glaring discrepancies observable in the proportions at different periods of the third or miscellaneous class of the population, render it evident that no very precise rule has been used for determining into which of the two non-agricultural classes a considerable number of families should be placed. By adopting only two divisions or classes, this difficulty is removed, and a greater degree of certainty upon the subject is attained. The persons appointed to prepare the returns might easily fall into errors in classing traders and followers of professions; but could hardly fail to distinguish from all others those families who drew their support from agricultural occupations.

Table showing the Occupations of the Population of Great Britain in the Year 1841.

OCCUPATIONS.	ENGLAND AND WALES.					SCOTLAND.				
	Males.		Females.		Total.	Males.		Females.		Total.
	20 Years and over.	Under 20 Years.	20 Years and over.	Under 20 Years.		20 Years and over.	Under 20 Years.	20 Years and over.	Under 20 Years.	
Persons engaged in Commerce, Trade, and Manufacture . .	1,750,128	318,434	391,261	159,383	2,619,206	277,507	69,058	89,189	37,827	473,581
Agriculture	1,041,980	161,697	48,450	9,321	1,261,448	166,009	40,823	17,380	5,125	229,337
Labour not agricultural	482,683	85,182	98,828	7,229	673,922	65,865	9,801	8,163	744	84,573
Army at home and abroad, including those on half-pay and in the East India Company's Service:—										
—— at home	30,460	6,303	..	..	36,763	3,921	710	..	..	4,631
—— abroad and in Ireland . . .	89,215	15	..	..	89,230	..	..	..	..	..
Navy and Merchant Seamen afloat and ashore, including Navy half-pay and Marines, Fishermen, Watermen, &c.:—										
—— at home	87,843	7,350	..	..	95,193	21,808	2,551	..	..	24,359
—— afloat	79,619	17,180	..	..	96,799	..	..	..	..	..
Professions: Clerical	20,450	..	..	..	20,450	2,956	..	..	..	2,956
Legal	14,155	..	..	..	14,155	3,185	..	..	..	3,185
Medical	17,666	..	770	..	18,436	2,919	..	649	..	3,568
Other pursuits requiring education .	81,372	10,637	30,060	1,809	123,878	12,988	2,687	2,236	188	18,099
Government Civil Service . . .	13,340	219	515	14	14,088	2,621	51	105	..	2,777
Municipal and parochial Offices, &c.	19,955	321	1,836	13	22,125	2,927	36	118	4	3,085
Domestic Servants	150,005	83,524	476,081	289,438	999,048	13,652	8,115	82,305	54,578	158,650
Persons of independent means . .	118,688	5,092	308,061	14,132	445,973	11,167	499	44,859	1,766	58,291
Gaol People, Prisoners, Paupers, Lunatics and Idiots . .	64,924	28,051	60,019	23,212	176,206	7,963	1,073	11,700	954	21,690
Rural occupations as engaged, &c. .	4,062,483	724,005	1,415,881	504,551	6,706,920	595,488	135,404	256,704	101,186	1,088,782
Remainder of Population, including Women and Children . . .	239,013	2,935,752	3,059,350	3,156,751	9,390,866	35,469	475,501	509,804	510,628	1,531,402
Total	4,301,496	3,659,757	4,475,231	3,661,302	16,097,786	630,957	610,905	766,508	611,814	2,620,184

Table showing the Occupations of the Population—continued.

OCCUPATIONS.	GREAT BRITAIN.					ISLANDS IN BRITISH SEAS.				
	Males.		Females.		Total.	Males.		Females.		Total.
	20 Years and over.	Under 20 Years.	20 Years and over.	Under 20 Years.		20 Years and over.	Under 20 Years.	20 Years and over.	Under 20 Years.	
Persons engaged in Commerce, Trade, and Manufacture . .	2,027,635	387,492	480,450	197,210	3,092,787	11,774	2,448	2,567	800	17,589
Agriculture	1,207,989	202,520	65,830	14,446	1,490,785	7,275	681	499	38	8,493
Labour not agricultural	548,548	94,983	106,991	7,973	758,495	1,995	152	1,151	75	3,373
Army at home and abroad, including those on half-pay and in the East India Company's Service:—										
—— at home	34,381	7,013	..	..	41,394	690	150	..	..	840
—— abroad and in Ireland . . .	89,215	15	..	..	89,230	2,048	231	..	..	2,279
Navy and Merchant Seamen afloat and ashore, including Navy half-pay and Marines, Fishermen, Watermen, &c.—										
—— at home	109,651	9,901	..	..	119,552					
—— afloat	79,619	17,180	..	..	96,799					
Professions: Clerical	23,406	..	..	..	23,406	137	..	..	..	137
Legal.	17,340	..	..	..	17,340	114	..	..	..	114
Medical	20,585	..	1,419	..	22,004	166	9	8	..	183
Other pursuits requiring education .	94,360	13,324	32,296	1,997	141,977	480	54	292	33	859
Government Civil Service . . .	15,961	270	620	14	16,865	88	..	5	1	94
Municipal and Parochial Offices, &c.	22,882	357	1,954	17	25,210	60	..	5	..	65
Domestic Servants	163,657	91,639	558,386	344,016	1,157,698	727	385	4,348	2,075	7,535
Persons of independent means . .	129,855	5,591	352,920	15,898	504,264	2,263	98	4,596	219	7,176
Alms People, Pensioners, Paupers, Lunatics, and Prisoners. . . .	72,887	29,124	71,719	24,166	197,896	652	131	319	71	1,173
Total returned as occupied, &c. . .	4,657,971	859,409	1,672,585	605,737	7,795,702	28,469	4,339	13,790	3,312	49,910
Remainder of Population, including Women and Children . . .	274,482	3,411,253	3,569,154	3,667,279	10,922,268	1,838	22,911	24,509	24,872	74,130
Total	4,932,453	4,270,662	5,241,739	4,273,016	18,717,970*	30,307	27,250	38,299	28,184	124,040

* This Table does not include 1,016 persons, officers, and prisoners on board convict hulks, nor 1,408 persons, passengers on board Her Majesty's ships; together 2,424 persons: making the total population 18,720,394.

Table showing the Centesimal Proportion which each Class of the Population bore to the other two Classes at the several Enumerations of 1811, 1821, 1831, *and* 1841.

COUNTIES.	Agriculture.				Trade, Manufactures, &c.				Other Classes.			
	1811	1821	1831	1841	1811	1821	1831	1841	1811	1821	1831	1841
Bedford	63·1	61·9	56·8	37·0	27·9	27·8	25·7	35·6	9·0	10·3	17·5	27·4
Berks	53·5	53·3	45·2	32·7	30·3	31·7	31·8	25·3	16·2	15·0	23·0	42·0
Bucks	53·3	57·6	53·0	36·6	33·4	28·8	26·4	32·8	11·3	13·6	20·6	30·6
Cambridge	61·0	60·7	53·3	39·3	25·2	27·2	27·2	25·3	13·8	12·1	19·5	35·4
Chester	36·8	34·8	25·2	15·1	51·8	52·1	53·9	52·9	11·4	13·1	20·9	32·0
Cornwall	39·5	37·7	30·7	20·9	24·8	30·3	22·3	24·7	35·7	32·0	47·0	54·4
Cumberland	38·3	35·5	30·5	21·6	40·3	41·3	34·5	36·0	21·4	23·2	35·0	42·4
Derby	38·2	34·4	27·5	17·3	42·2	48·4	43·0	46·3	19·6	17·2	29·5	36·4
Devon	41·6	40·8	34·8	24·8	39·0	37·5	32·7	31·6	19·4	21·7	32·5	43·6
Dorset	48·4	48·9	43·4	30·1	35·8	35·7	30·1	30·5	15·8	15·4	26·5	39·4
Durham	26·2	20·5	15·3	11·9	43·5	44·0	33·8	37·3	30·3	35·5	50·9	50·8
Essex	55·2	55·7	52·9	39·0	27·5	28·8	28·0	24·6	17·3	15·5	19·1	36·4
Gloucester	33·4	32·1	25·4	17·4	48·3	49·8	39·7	36·3	18·3	18·1	34·9	46·3
Hereford	62·7	61·8	54·3	34·8	25·1	25·7	25·9	23·6	12·2	12·5	19·8	41·6
Hertford	52·8	51·5	45·4	31·7	31·5	30·3	29·2	31·7	15·7	18·2	25·4	36·6
Huntingdon	60·9	61·9	55·3	40·5	25·0	28·2	26·0	25·6	14·1	9·9	18·7	33·9
Kent	35·5	35·9	32·6	21·7	36·7	35·1	30·3	25·3	27·8	29·0	37·1	53·0
Lancaster	14·4	11·2	9·5	6·7	70·7	74·9	66·7	62·9	14·9	13·9	23·8	30·4
Leicester	37·2	35·4	29·3	20·1	54·1	55·1	54·5	48·9	8·7	9·5	16·2	31·0
Lincoln	58·7	59·4	54·3	40·0	25·9	26·9	26·2	24·4	15·4	13·7	19·5	35·6
Middlesex	4·1	3·6	3·1	2·5	61·0	61·6	55·4	42·9	34·9	34·8	41·5	54·6
Monmouth	46·3	42·6	28·2	15·4	38·4	43·5	43·3	31·4	15·3	13·9	28·5	53·2
Norfolk	50·1	48·8	44·7	32·8	36·7	35·2	34·3	31·8	13·2	16·0	21·0	35·4
Northampton	49·7	53·4	46·8	34·1	39·4	32·9	32·9	35·6	10·9	13·7	20·3	30·3
Northumberland	29·0	26·8	20·9	17·4	43·8	47·7	29·5	37·5	27·2	25·5	49·6	45·1
Nottingham	36·7	35·3	28·3	20·2	56·5	56·6	54·3	51·1	6·8	8·1	17·4	28·7
Oxford	54·6	55·3	48·1	34·9	30·6	31·1	29·8	29·2	14·8	13·6	22·1	35·9
Rutland	56·9	61·3	54·9	41·3	28·9	26·2	26·3	24·3	14·2	12·5	18·8	34·4
Salop	42·3	44·2	36·8	28·4	42·5	44·0	34·9	28·9	15·2	13·8	28·3	42·7
Somerset	43·6	42·8	36·0	25·0	37·7	36·9	33·4	31·8	18·7	20·3	30·6	43·2
Southampton	42·0	41·9	35·2	25·3	35·4	34·2	32·4	26·7	22·6	23·9	32·4	48·0
Stafford	29·4	26·6	21·7	14·5	54·3	61·7	52·2	47·5	16·3	11·7	26·1	38·0
Suffolk	55·5	55·9	51·2	38·2	31·8	31·6	29·4	27·5	12·7	12·5	19·4	34·3
Surrey	17·1	16·8	13·4	10·2	48·5	52·7	45·5	37·8	34·4	30·5	41·1	52·0
Sussex	54·9	50·3	42·6	30·5	29·8	35·5	33·2	24·9	15·3	14·2	24·2	43·6
Warwick	30·8	27·9	21·9	14·4	60·7	65·2	59·9	52·4	8·5	6·9	18·2	33·2
Westmoreland	49·0	48·8	40·6	27·8	30·5	36·4	37·4	32·8	20·5	14·8	22·0	39·4
Wilts	54·1	52·4	48·5	36·3	35·5	35·6	30·2	27·9	10·4	12·0	21·3	35·8
Worcester	40·5	38·2	32·1	25·2	49·4	47·6	42·0	41·7	10·1	14·2	25·9	33·1
York, E. Riding	40·1	38·2	35·2	29·0	35·7	41·1	29·3	31·3	24·2	20·7	35·5	39·7
" N. Riding	46·2	43·2	44·1	34·5	30·3	30·0	27·7	29·0	23·5	26·8	28·2	36·5
" W. Riding	23·1	19·6	18·2	10·7	64·8	67·4	69·4	61·7	12·1	13·0	12·4	27·6

The mode of computation, adopted in 1841 for determining the occupations of the people, differed from that employed at the three preceding periods, so that no perfect comparison can be made as to the result. If we exclude from the examination the columns for 1841, it will be seen that eight, or one-fifth part by number, of the English counties maintained unaltered, during 20 years, their relative positions as regards the employments of their inhabitants. These counties were—

Bedford, which is chiefly agricultural; Somerset, Devon, and Cornwall, which have a mixed population; and Middlesex, Surrey, Lancashire, and Warwickshire, two of which are metropolitan counties, while the remaining two are at the head of the manufacturing counties.

Table showing the Numerical Order in which the different Counties of England stood relatively to each other, with reference to the Proportional Number of their Population who were engaged in Agriculture or otherwise, at each of the Decennary Enumerations of 1811, 1821, 1831, *and* 1841.

COUNTIES.	1811		1821		1831		1841	
	Agricultural Class.	Other Classes.	Agricultural Class.	Other Classes.	Agricultural Class.	Other Classes.	Agricultural Class.	Other Classes.
Bedford	1	42	1	42	1	42	10	33
Berks	12	31	12	31	14	29	12	31
Bucks	13	30	7	36	7	36	7	36
Cambridge	3	40	5	38	6	37	8	35
Chester	31	12	32	11	34	9	34	9
Cornwall	27	16	27	16	27	16	29	14
Cumberland	28	15	29	14	28	15	26	17
Derby	29	14	33	10	32	11	32	11
Devon	24	19	24	19	24	19	22	21
Dorset	18	25	16	27	17	26	21	22
Durham	38	5	38	5	39	4	38	5
Essex	8	35	9	34	8	35	3	40
Gloucester	34	9	34	9	33	10	31	12
Hereford	2	41	3	40	4	39	4	39
Hertford	14	29	14	29	13	30	15	28
Huntingdon	4	39	2	41	2	41	5	38
Kent	33	10	28	15	23	18	27	16
Lancaster	41	2	41	2	41	2	41	2
Leicester	30	13	30	13	29	14	30	13
Lincoln	5	38	6	37	5	38	1	42
Middlesex	42	1	42	1	42	1	42	1
Monmouth	19	24	22	21	31	12	35	8
Norfolk	15	28	17	26	15	28	16	27
Northampton	16	27	11	32	12	31	13	30
Northumberland	37	6	36	7	37	6	33	10
Nottingham	32	11	31	12	30	13	28	15
Oxford	10	33	10	33	11	32	14	29
Rutland	6	37	4	39	3	40	2	41
Salop	22	21	19	24	20	23	19	24
Somerset	21	22	21	22	21	22	23	20
Southampton	23	20	23	20	22	21	25	18
Stafford	36	7	37	6	36	7	37	6
Suffolk	7	36	8	35	9	34	9	34
Surrey	40	3	40	3	40	3	39	4
Sussex	9	34	15	28	18	25	18	25
Warwick	35	8	35	8	35	8	36	7
Westmoreland	17	26	18	25	19	24	20	23
Wiltshire	11	32	13	30	10	33	6	37
Worcester	25	18	25	18	26	17	24	19
York, East Riding	26	17	26	17	23	20	17	26
„ North Riding	20	23	20	23	16	27	11	32
„ West Riding	39	4	39	4	38	5	40	3

If the returns for 1841 are included, it will still be seen that there has been but little change since 1811 in the relative position of the counties as respects agricultural employment. Berkshire, Durham, Lancashire, Leicestershire, and Middlesex, occupy the place which they filled in 1811; Buckinghamshire, Cumberland, Devonshire, Essex, Gloucestershire, Kent, Lincolnshire, Northamptonshire, Northumberland, Nottinghamshire, Rutlandshire, Shropshire, Wiltshire, Worcestershire, the East and North Ridings of Yorkshire, have taken a higher relative position as agricultural divisions; while all the remaining

divisions of England have changed their rank in the opposite direction. As regards Monmouthshire, the alteration has been occasioned by the great increase in the number of coal mines and in the smelting and manufacturing of iron; and the change that has taken place in Sussex is owing to the rapid growth of its watering-places, Brighton, Worthing, and Hastings.

In addition to the general divisions of the people into three great classes, as already explained, an attempt was made in 1831 to subdivide the males 20 years of age and upwards; and to some extent that attempt was successful. Among the males employed in agriculture a very important distinction was drawn between occupiers of land who employ labourers, other occupiers of land who cultivate their holdings without such assistance, and labourers who are employed by occupiers in the first subdivision. The proportion of the population in Ireland, which is engaged in agricultural pursuits, is more than double the proportion so employed in Great Britain; but the subdivision just noticed exhibits in a yet more striking point of view the wide difference that exists in the customs and condition of the inhabitants of the two islands. In Great Britain about two-sevenths of the agriculturists were in 1831 occupiers of land, and these were divided in nearly equal proportions into those who do and those who do not employ labourers: the agricultural labourers form the remaining five-sevenths of the class. In Ireland only about one-thirteenth part of the agriculturists above twenty years of age were occupiers employing labourers, while the remaining twelve-thirteenths were divided almost equally into occupiers without labourers, and labourers for others who are not occupiers. The average number of labourers to each occupier employing them is by no means equal in the two parts of the kingdom, being at the rate of 4¼ labourers to each employing occupier in Great Britain, and as high as 5¼ labourers to each employing occupier in Ireland.

The course adopted by the Census Commissioners for Ireland, of ascertaining the occupations of the people in families, and of also stating the employment of adult males, affords another element for the elucidation of questions connected with the progress of the population. The variance between the Irish and the English returns as respects the age at which occupations are stated—viz., 15 in Ireland and 20 in England—prevents that close comparison between the condition of the two populations which it would be interesting to make. The number of families in Ireland in 1841, was 1,472,787, of whom 974,188, or 66·15 per cent., were engaged in agricultural pursuits. The number of males 15 years old and upwards, was 2,341,895, of whom 1,643,082, or 70·16 per cent., were employed in producing food, so that each 1000 of the whole number of families furnished 1115 adult males to the ranks of agriculture, while each 1000 families in those ranks furnished

1686 male adults occupied, as employers or labourers, in producing food. From the data above given, it will appear how very different, in regard to the occupations of the people, are the populations of Great Britain and Ireland. While a rapid change has been going forward in England and Scotland, where the proportionate number of persons engaged in agriculture is continually and rapidly diminishing, Ireland in that respect continues stationary, or indeed moves slightly in the contrary direction.

In 1831 the division of the people as regarded occupations was such in Great Britain that 315 persons were employed in raising agricultural produce for themselves and 685 other persons; *i. e.*, 1000 persons sufficed to provide food for 3174 persons, including themselves. In 1841, it appears that 251 persons raised the food necessary for themselves and 749 other persons, or 1000 persons employed in agricultural processes supplied the wants, as respects food, of 3984 persons, including themselves. One person thus raising nearly all the food of home production consumed by four persons.

In Ireland, the labour of 657 persons was required in 1831 to raise the food demanded by themselves and 343 other persons; *i. e.*, 1000 persons supplied food for only 1522 persons, including themselves; and in 1841, it required the labour of 662 persons to raise a supply for themselves and 338 others, or 1000 persons engaged in agricultural employment as farmers and labourers provided food for only 1511 persons, including themselves.

Some considerable allowance must be made for the quantity of agricultural produce exported from Ireland, and for the quantity imported into Great Britain from Ireland and from foreign countries, but we have no sufficient data available for determining the exact degree of that allowance. Without taking that circumstance into the account, it would appear that the labour of 1000 persons in Great Britain is equal to that of 2636 persons engaged in farming operations in Ireland.

We have seen that the proportionate number of persons employed in agriculture in Great Britain has been continually lessening—a fact which might have been foreseen by persons acquainted with the improvements that have been introduced into farming operations since the beginning of the present century, and especially of late years; but it could hardly have been foreseen, that, while the population has made such rapid strides as we know it to have made, the absolute number of the population engaged in agriculture should have diminished. This however is the fact. In 1831 the number of adult males employed in agriculture in Great Britain was 1,243,057 out of a population of 16,539,318; but in 1841, with our numbers increased to 18,720,394, the adult males so employed were only 1,207,989, or fewer than at the preceding census by 35,068 persons.

Increased productive power on the part of the inhabitants of any country is in itself an evidence of the progress of the people in civilization. In times when the greater part of the productive labour of a country is required for raising the necessaries of life, the means of obtaining conveniences or the productions of other climates must be extremely limited. In countries where the labour of a man, applied to the cultivation of the soil, should be capable of producing only a bare subsistence for himself, it is plain that society could never advance in the scale of civilization. But if, by means of improved implements or better methods of culture, the labour of two men could be made to provide for the subsistence of three, the labour of the third man would be set free for the production of surplus articles, which would add to the sum of the general convenience. It is long before communities arrive at such a state of improvement as will admit of so considerable a number as one-third of the population being spared from the cultivation of the soil. Ireland is not much advanced beyond this state at present. In the absence of all precise information in regard to the produce of the soil in this kingdom, only an approximation to the truth can be attained. Taking the best data that can be had, it appears that the labour of 19 families is required to produce, annually, 1160 quarters of all kinds of grain, being at the rate of 61 quarters for each family. Applying this rule to the case of Ireland, it will appear that the labour of 42,737 families is required in order to raise the average quantity of grain that has been annually sent to England and Scotland during the 20 years from 1825 to 1844. If this number of families be deducted from the entire number who are employed in agriculture in Ireland, it will be found that the labour of 931,451 families, being 632 in every 1000, is required for raising food for the use of the native population. Some abatement must indeed be made from this large proportion on account of the number of animals reared and converted into food for the consumption of England and of other countries. No means exist for ascertaining the precise number of these animals; but admitting that number to be very considerable, it cannot materially alter the proportion here stated.

The advantage of being able to classify and compare the numbers of the population who have applied themselves at different periods to different pursuits is exceedingly great, as enabling us to estimate and to mark the progress of the country. It is to be regretted that the attempt at this classified enumeration, which was made at the census of 1801, was so far unsuccessful that it would be wrong to build any argument upon it. On this subject, Mr. Rickman, in his interesting preface to the abstract of the returns of 1831 (page ix), says, "The question of 1801, relating to the occupation of *persons*, was found in practice to produce so valuable result. In some cases a householder seemed to understand

that the females of his family, his children and servants, ought to be classed with himself; in some cases he returned them in the negative class, as being neither agricultural nor commercial; in some cases he omitted them entirely. Thus the failure of the question became manifest, and the worthless answers were entered without attempt at correction."

The failure here mentioned occasioned the adoption of a different course at the enumerations of 1811, 1821, and 1831. That course and its result cannot be better stated than in the words of Mr. Rickman:—

"The question concerning occupation or employment, as amended in the Population Acts of 1811, 1821, and 1831, inquires what number of *families* (not of *persons*) are chiefly employed in, or maintained by, agriculture? How many by trade, manufacture or handicraft? and how many *families* are not comprised in either of these classes? and in general the answers appear to have been made with care and distinctness in the years 1811 and 1821: but a more particular classification was thought to be desirable and practicable in 1831; and it was recommended to the Committee of the House of Commons to ask the occupation or employment of every male 20 years of age; not only because he is then usually settled in his vocation, but because the number of males under 20 years of age, and the number upwards of 20 years of age, was found to have been so equal in the enumeration of 1821, that any considerable deviation from that obvious proportion was likely to induce further inquiry, and correction in every case suspected of error, for in the enumeration of 1821 the males under 20 were 3,072,392—upwards of 20, 3,002,200, including all the males whose ages were then ascertained. In the enumeration of 1831, the males known to be under 20 were 3,941,495—upwards of 20, 3,944,511 (the army, navy, &c., are not included;) indeed the increase of population in Great Britain has not been materially accelerated or retarded since the year 1801, having been always about one and a half per centum per annum."

After explaining the subdivisions adopted in 1831, with regard to the agricultural class, Mr. Rickman proceeds:—

"The number of those employed in manufacture is next asked, and the species of manufactures, as far as such can be distinguished and designated in a note. These notes are collected into a summary at the end of each county, not in columns, which was impracticable, but in narrative, such as each individual case permitted or required.

"The number of those employed in retail trade and handicraft, as distinguished from manufacture, appears in the next column; this was supposed to be capable of subdivision, and after much consideration and correspondence with the members of Parliament who had constituted the Committee on the Population Bill, a list was issued with each schedule,

containing 100 of the most usual denominations of retail trade and handicraft.

"This list was known to contain far less than the entire number of trades in large towns, especially in the metropolis, where, in the result, no less than 426 subdivisions of trade were found to exist; but a greater number than 100 would have been inapplicable and even perplexing in rural parishes, and the space left at the bottom of the list, as well as the list itself, was so attentively and correctly filled, that the defective specification does not exceed one in 112 males upwards of 20 years of age employed in retail trade or handicraft; the lists returned by all the parishes constituting the metropolis do not present a single defect: a remarkable instance of accuracy."

In the table last inserted, showing the numerical order in which the counties of England stood relatively to each other as regarded the occupations of their inhabitants in 1811, 1821, and 1831, the population was divided into only two classes—agriculturists and others, and a reason was given for the adoption of this division in preference to that made in the population returns, grounded upon the degree of uncertainty that accompanied the division of other classes, and which rendered abortive all attempts to separate the proportions of those employed in "trade, manufactures, and handicraft," from the division comprehended under the description of "all other families."

That degree of uncertainty is clearly shown in the "Comparative statement of the numbers and occupations of families," (*see* page 53,) where the centesimal parts exhibited by the three divisions were stated to have been as follows at the three last enumerations in Great Britain:—

Years.	Agriculture.	Trade.	Others.	
1811	35·2	44·4	20·4	100
1821	33·2	45·9	20·9	100
1831	28·2	42·	29·8	100

It would appear from this calculation that a very considerable part of the population—4 out of 46—had withdrawn themselves, between 1821 and 1831, from the pursuits of trade, manufactures, and handicraft, a circumstance well known to be altogether at variance with the fact. The summary of the returns of 1831, respecting the occupations of males 20 years of age and upwards, throws considerable light upon the subject, by exhibiting them under several subdivisions. The males belonging to the families included in the non-agricultural and non-manufacturing classes were then given under four distinct heads of description, viz.:—

Capitalists, bankers, professional and other educated men.

Labourers employed in labour not agricultural.

Other males, 20 years of age, except servants.

Male servants, 20 years of age.

The whole number of males included under these heads amounted to 1,137,270. Of these, 608,712 were actually employed in labour which, although, strictly speaking, it was neither manufacturing nor trading, was yet necessary to the successful prosecution of some branch of trade or manufactures, such as mining, road-making, canal-digging, inland navigation, &c. The number of male domestic servants of 20 years and upwards amounted to 78,669. As for the males, 235,499 in number, to whom no particular calling has been assigned, a very large proportion of them were doubtless those among the labouring classes, who had arrived at ages or were subject to infirmities which prevented them from longer working. It may thus be seen how very small is the proportion of persons arrived at maturity who are not employed in some one or other of the occupations whereby the sum of the national wealth or convenience is advanced. Without making any allowance for the superannuated or infirm, it appeared that profitable, and, for the most part, manual occupations might be assigned to 3,494,622 persons out of 3,944,511, being a proportion of 886 in every 1000 males 20 years of age in Great Britain; while among the remaining 449,889 were to be found a large proportion whose professional labour is essential to the health, the instruction, the convenience, and the security of their fellow-citizens. If the number of males included in the army and navy, and as seamen in registered vessels (277,017), be taken into the calculation, the proportion of 114 males not employed either in manual labour or some other species of active occupation in every 1000 of the male population, which results from the above statement, will be reduced to 106.

It will be seen, on referring to the table at page 58, that the number of male persons 20 years of age and upwards, living in and belonging to Great Britain in 1841, was 4,932,453, of whom 1,207,989 were employed in agricultural pursuits; 2,027,635 were engaged in trade, commerce, and manufactures; 548,548 were employed in unclassed labour not agricultural; 123,596 composed the army of the United Kingdom at home and abroad; 189,270 comprised the navy, national and mercantile, fishermen, &c.; 61,331 were engaged in the learned professions—divinity, law, and physic; 15,961 were employed in the civil service of government: 22,882 in municipal and parochial offices; 163,657 were in domestic service; 72,887 were alms-people, pensioners, paupers, lunatics, and prisoners; 94,360 were following various pursuits requiring education, including those engaged in imparting knowledge to others. Of the remaining 404,337 adult males, 129,855 were ascertained to be persons of independent means, leaving 274,482 in respect of whose occupations no particulars were given. It would be wrong to consider this last-named number of persons as living without occupation. They comprise among them persons who slept in barns and tents on the night

preceding the day of enumeration; but if we assume that the whole number were unemployed, they and persons of independent means amount to no more than 82 in each 1000 of the male adult population.

The specification given in the population returns of 1831, of the retail trades and handicrafts followed by the families in Great Britain, who were represented by 1,159,867 males 20 years of age and upwards, (*see* p. 55), was not calculated to throw any light upon the inquiry wherein we are engaged; nor could it in any considerable degree be made useful in statistical investigations. That specification would lead to many erroneous conclusions, in consequence of some one branch of a man's trade being frequently given, to the exclusion of others as important. It will sufficiently justify this objection to state a very few of the anomalies which the statement presents. Thus there were in England, according to this specification, 5030 coach-makers, and but 1 coach-spring maker. The whole kingdom is stated to give employment to only 3 coffin-makers, each of whom would therefore be called upon to provide about 300 coffins daily throughout the year. One drug-grinder alone appears, while the druggists whom he is to supply amount in number to 5423. It cannot be necessary to go further into this alphabet of trades in order to show, from internal evidence, the little dependence to be placed upon it, but having been induced to test the list in some of its particulars by means of another statement which cannot be otherwise than accurate, the result is here given.

The number of licenses issued by the Commissioners of Excise, upon every one of which a duty is levied, affords as sure an indication as can well be had upon the subject. Some men may carry on a trade for which a license is legally necessary, without taking one from the office, but it may be presumed that nobody will pay for a license who does not pursue the calling for which it qualifies him.

The following list of the number of excise licenses issued to certain classes of traders in 1831, the year to which the specification of trades relates, is taken from the Official Tables of the revenue, &c., compiled by the Board of Trade. By its side we have placed the numbers of persons who, according to the population abstract, follow the several callings mentioned.

Description of Dealers.	Number of Excise Licenses issued.	Number of Trades, according to the Population Abstract.
Brewers	42,907	5,765
Maltsters	12,716	6,970
Soap-makers . . .	276	20
Spirit-dealers . . .	67,500	4,031
Tea-dealers . . .	89,202	3,456
Tobacco-dealers . .	150,843	2,224
Wine-dealers . . .	22,553	1,594

Many licenses for brewing, and for dealing in wine, spirits, and tobacco, are taken out by publicans, but the entire number of this class, including all the keepers of "beer-shops," who do not of course take out such licenses, amounts to no more than 61,231. The number of licenses granted to publicans for the sale of spirits or wine, in addition to beer, in 1831, was only 20,638. As regards tea-dealers, the discrepancy would not be remedied by comprehending under that name all who figure in the specification as grocers, and the number of whom (including the numerous tribe of green-grocers) amounts only to 22,147. A sufficient number of tobacco-dealers to account for the number of licenses will not be got together, if all the grocers, tea-dealers, and publicans in the specification are taken into the account. It must be evident, from these facts, that such a specification as this is perfectly useless.

For the purpose of comparison, the number of excise licenses granted in 1841 for carrying on the trades just enumerated is here given.

	England.	Scotland.
Brewers	44,232	433
Maltsters	9,286	1,680
Soap-makers	150	17
Spirit-dealers	56,012	15,720
Tea-dealers	82,063	13,357
Tobacco-dealers	158,344	13,661
Wine-dealers	24,170	2,948

The statement of the occupations of males, 20 years of age and upwards, in Ireland in 1831, left even a smaller proportion than were found in Great Britain to belong to the non-labouring part of the community. Out of 1,867,765 males of mature age, 1,277,054 were classed as agriculturists; the manufacturing and trading classes employed 324,584; the labourers not employed in agriculture were stated as 89,876; and male servants 20 years of age and upwards, 54,142; leaving only a residue of 172,109 persons to comprehend the capitalists and professional men, as well as the really unproductive members of the community. These numbers exhibit 908 and 92 as the relative proportions of employed and unemployed persons in Ireland in that year, and the latter class must be diminished by the clergy and members of the liberal professions.

In the specification of occupations in Ireland in 1841, the age of 15 was assumed instead of 20, as in Great Britain, for determining the numbers employed.

It will be seen from the following table, that out of 2,341,895 male persons 15 years of age and upwards, there were then only 128,438, or 55 in each 1000, not engaged in some settled occupation; a very extraordinary result, if we consider the tender age at which the inquiry was made to apply, an age at which many of the sons of persons in the [redacted] rank of life would be still engaged in study.

OCCUPATIONS.	MALES.		FEMALES.		TOTAL.
	15 Years and over.	Under 15 Years.	15 Years and over.	Under 15 Years.	
Ministering to Food—					
As Producers	1,594,682	102,952	128,345	18,512	1,844,491
Preparers	21,493	392	1,307	24	23,216
Distributors	26,907	205	9,218	34	36,364
Ministering to Clothing—					
As Manufacturers of Materials	116,670	5,426	513,192	34,022	669,310
Handicraftsmen and Dealers	95,912	2,738	123,717	9,647	232,014
Ministering to Lodging, Furniture, Machinery, &c. . . .	158,349	2,298	3,488	231	164,366
Ministering to Health	4,081	1	2,788	1	6,871
„ Charity . . .	106	..	147	..	253
„ Justice	19,483	2	56	..	19,541
„ Education . . .	11,381	13	5,414	6	16,814
„ Religion . . .	6,054	1	1,137	..	7,192
Various Arts and Employments, not included in the foregoing .	158,339	14,740	289,005	29,344	491,428
	2,213,457	128,768	1,077,814	91,821	3,511,860
Residue of Population not having specified occupations, and including unemployed persons, women and children . . .	128,438	1,548,913	1,451,846	1,534,067	4,663,264
Total	2,341,895	1,677,681	2,529,660	1,625,888	8,175,124
Distribution of occupied persons according to the provinces inhabited by them, distinguishing males from females, and adults from children—					
Leinster	542,409	25,272	244,602	16,302	828,585
Munster	656,642	29,788	256,049	21,909	964,388
Ulster	632,146	45,111	399,814	36,689	1,113,760
Connaught	382,260	28,597	177,349	16,921	605,127
Total	2,213,457	128,768	1,077,814	91,821	3,511,860

The census of 1831, for the first time, made us acquainted with the number of domestic servants in each division of the kingdom; their numbers then, and in 1841, were as follows:—

Domestic Servants of all Ages.

	FEMALE SERVANTS.				MALE SERVANTS.			
	1831		1841		1831		1841	
	Number.	Number in each 1000 Females.	Number.	Number in each 1000 Females.	Number.	Number in each 1000 Males.	Number.	Number in each 1000 Males.
England . .	518,705	77	712,493	93	101,406	16	202,214	27
Wales . . .	42,274	102	52,672	113	3,324	8	9,484	21
Scotland. . .	109,512	87	136,883	99	8,494	7	21,767	17
Ireland . . .	253,155	63	260,400	63	98,742	26	295,766	73
United Kingdom	923,646	74	1,162,448	85	211,966	18	529,231	40

Owing to the imperfection of the returns relating to Ireland, and the frequent changes that have been made in the regulations of the Excise Board, the following table (p. 71) of the number of licenses granted for the exercise of certain branches of business does not afford the requisite data for comparison in all cases between the three periods chosen. In 1801 and 1816 the brewers' licenses did not include that very numerous class of publicans who are likewise brewers, but who swell the list in 1833 and 1841. The licenses for retailing beer were, in the first period, issued by the magistrates, and no record of their number is procurable. With respect to auctioneers, tea and coffee dealers, glass manufacturers, maltsters, paper-makers, and dealers in spirits, tobacco and wine, the table may be consulted for comparative data.

A careful, and what may fairly be called a very successful attempt was made by the Census Commissioners for Great Britain in 1841 minutely to ascertain the various employments of the people. On all previous occasions, with the exception of 1831, nothing further was successfully attempted in this direction, than to divide the families of which the population was made up into three classes, viz.—1st, Agricultural; 2nd, Manufacturing and Trading; and 3rd, all families not comprised in the other two classes. The result of those attempts has been shown, and it has been found that the proportions in those different classes have been constantly changing, and always in the same direction, the agricultural class becoming continually smaller, while the manufacturers and traders, on the other hand, have been as regularly increasing. A like result is exhibited by the classification of 1841, as will be seen by comparing the following figures with those given at page 53, in which the occupations were stated as they now are repeated, of males 20 years old and upwards. The proportions of that part of the population at the two periods are divided as follows:—

	1831	1841
Agriculture	31·5	25·2
Trade and Manufactures . .	39·7	44·6
Other Classes	28·8	30·2
	100·	100·

The numbers from which the above proportions are derived will be found in the table, page 72.

Table referred to in page 70.

Number of Excise Licenses granted for the exercise of certain Trades, in each of the Years 1801, 1816, 1833, *and* 1841.

Description of License.	1801				1816			
	England.	Scotland	Ireland.†	Total.	England.	Scotland.	Ireland.	Total.
Auctioneers	2,984	608	..	3,592	3,350	644	248	4,242
Brewers	1,268	187	..	1,455	1,559	234	608	2,401
Beer Retailers	*	..	..	..	48,846	8,469	..	57,315
Tea and Coffee Dealers	56,248	5,817	..	62,065	60,262	7,826	5,217	73,305
Glass Manufacturers	81	13	..	94	95	14	..	109
Maltsters	9,050	271	..	9,361	8,548	272	..	8,820
Paper Makers and Stainers	413	35	..	448	522	58	44	624
Soap Makers	570	54	..	624	375	40	..	415
Dealers in Spirits, Wholesale	1,739	952	..	2,691	1,983	284	..	2,267
" Retail	32,017	2,477	..	34,494	35,377	2,695	19,693	57,765
Tobacco Manufacturers	308	109	..	417	328	181	418	927
Dealers in Tobacco and Snuff	79,603	3,889	..	83,492	94,538	5,743	..	100,281
Wine Dealers, Wholesale	1,199	149	..	1,348	1,381	128	..	1,509
" Retail	10,164	610	..	10,774	10,556	844	..	11,400

Description of License.	1833				1841			
	England.	Scotland	Ireland.†	Total.	England.	Scotland.	Ireland.	Total.
Auctioneers	3,040	378	268	3,686	3,184	384	355	3,923
Brewers	43,695	640	227	44,562	44,232	433	137	44,802
Beer Retailers	53,026	17,180	20,629	90,835	59,925	15,747	14,260	89,932
Ditto under Act 1 Will. IV., c. 64	35,629	..	..	35,629	38,248	..	..	38,248
Tea and Coffee Dealers	76,832	13,442	11,305	101,579	82,063	13,357	8,773	104,193
Glass Manufacturers	103	9	8	126	128	15	5	148
Maltsters	10,598	2,315	330	13,243	9,286	1,680	211	11,177
Paper Makers and Stainers	586	52	98	736	370	49	48	467
Soap Makers	249	27	223	499	150	17	177	344
Dealers in Spirits, Wholesale	2,986	543	365	3,894	2,856	434	305	3,595
" Retail	48,347	16,730	20,080	85,157	53,156	15,286	13,365	81,807
Tobacco Manufacturers	295	146	300	741	319	133	244	696
Dealers in Tobacco and Snuff	143,778	12,791	11,216	167,785	158,344	13,661	13,126	185,131
Wine Dealers, Wholesale	1,770	40	180	1,990	1,750	30	169	1,949
" Retail	18,639	2,593	2,930	24,162	22,420	2,918	1,993	27,331

* No account granted by magistrates. † Not any account extant for this year.

DIVISION OF KINGDOM.	Males 20 Years of Age and upwards.	AGRICULTURE.		TRADE, MANUFACTURES, &c.		OTHER CLASSES.						
		Farmers and Graziers, Land-surveyors, Nurserymen, and Florists.	Farm Bailiffs and Stewards, Gardeners, and Agricultural Labourers.	Employed in Manufactures and making Manufacturing Machinery.	Employed in retail Trade, or in Handicraft as Masters or Workmen.	Capitalists, Bankers, and other professional and educated Men.	Labourers employed in Labour not Agricultural.	Male Servants 20 Years of Age and upwards.	Army, Navy, and Seamen in Merchant Service at Home and in Harbour.	Persons of Independent means.	Alms People.	Other Males 20 Years of Age and upwards.
England . . .	3,897,336	196,723	761,307	305,594	1,447,101	165,641	409,837	124,877	63,041	113,736	45,960	264,419
Wales	233,427	31,933	48,320	5,445	67,439	6,381	38,330	4,849	3,115	4,952	1,805	20,858
Scotland . . .	630,328	45,649	114,224	81,123	218,794	32,459	56,726	13,367	11,178	11,167	6,248	39,393
Great Britain .	4,761,091	274,305	923,851	392,162	1,733,334	204,481	504,893	143,093	77,334	129,855	53,113	324,670
		1,198,156		2,125,496		1,437,439						
		or		or		or						
	———	25·17 per Cent.		44·64 per Cent.		30·19 per Cent.						
	Families.											
Ireland . . .	1,472,787	974,188		352,016		146·583						
		or		or		or						
		66·15 per Cent.		23·90 per Cent.		9·95 per Cent.						

The detailed account of the occupations of the people in Ireland divides them into families (which division has not been retained in the Census of Great Britain), and into individuals of the two sexes under 15 years of age, and 15 years old and upwards. As already remarked, no very accurate comparison can therefore be made in this respect between the population of Ireland and that of the other portions of the kingdom. It must obviously lead to error if we were to base our calculations upon numbers from which parties living between 15 and 20 years of age were excluded in one case while they should be included in the other. The proportionate number between those two periods of life, who should have chosen their calling or employment, must vary to so great a degree in different localities, that no accurate rule could well be formed for determining their amount, and the result must be liable to error, whatever proportion might be assumed for the estimate. It was at one time intended that the divisions of adults from children in the English and Scottish returns should also have been made at 15 years of age, and there are reasons which seem to point out that as the most fitting age for the purpose with reference to the greater part of the population. It is much to be desired that on future occasions the plan pursued throughout the divisions of the United Kingdom should be as far as possible in agreement.

The proportionate numbers of families engaged in the great divisions of employment in Ireland in 1831 and 1841, were as follows:—

	1831	1841
Agriculture	65·7	66·2
Trade and Manufactures . . .	17·4	23·9
Other Classes	16·9	9·9
	100·	100·

The greater proportion of traders and manufacturers found in 1841 is most probably the result of greater accuracy on the part of the enumerators in that year. There was not equal room for error in regard to the distinction between agricultural and non-agricultural; and we may assume that the proportion assigned to the agricultural classes was substantially correct in both years.

The proportionate number of the population to whom occupations are assigned in Ireland is somewhat greater than that assigned in Great Britain, where the number in each 10,000 is 4164 against 4295 in Ireland.

The following statement presents a comparison between 1831 and 1841, as respects the families of Ireland:—

	1831	1841
Families employed in Agriculture	884,339	974,188
" " Manufactures and Trade . .	249,359	352,016
Remaining Families	251,368	146,583
Total number of Families	1,385,066	1,472,787

It appears from these figures that the average number of members in each family has slightly diminished since 1831. In that year the average number in each 100 families was 560; whereas, in 1841, the average number was found to be only 555.

Something useful was effected when, as the result of previous enumerations, we were presented with the numbers and proportions of the population engaged in the great divisions of employment, so that we could estimate in this respect the comparative importance of agricultural, trading, and manufacturing occupations. This, which was nearly the extent of the information given at each census before that of 1841, was far from satisfying the wishes of persons who desired to know the condition, and to watch the progress of various subdivisions of employment, that so they might be able to mark the influence upon industry of legislative interference, and of changes in our foreign relations. At the recent census much of this desirable knowledge has been gained, both in Great Britain and Ireland; and thus we have laid a groundwork for observation, whereby we, and those who will come after us in future years, may be enabled to avoid some of the errors which hitherto have retarded our social progress. With this view the volumes prepared by the Census Commissioners for Great Britain and Ireland in 1841 must be considered as of the greatest value to future legislators and statesmen.

All that can be attempted in these pages is to give the result attained as respects a few of the more important branches of industry.

On comparing the numbers of male servants in 1831 and 1841,* it is evident that the two statements cannot have been made up on the same principle. The increase from 211,966 to 529,231 is very far beyond any that can actually have been experienced. The English Census Commissioners for 1841 have partly accounted for the apparent increase in the number of male domestic servants in Scotland, by stating that many were placed in the list who should more properly have appeared as farm servants. This will not, however, account for much of the increase, the whole additional number assigned to 1841 over 1831 in Scotland being no more than 13,273. In England the number is doubled, a result that is not confirmed by the returns from the Tax Office, and in Ireland the numbers are nearly 3 to 1 when compared with 1831. If we assume that the latest return is correct, it appears that in the United Kingdom there are employed as domestic servants 85 out of each 1000 females living, and 40 out of each 1000 males. Taking males and females together it would appear that 63 persons in 1000 are thus engaged; while in 1831 the census returns give only 47 in 1000 of the population as domestic servants.

* See Table, page 70.

Of greater importance as respects the result of their labour, and nearly equal to domestic servants numerically, are persons engaged in the various branches of our textile manufacturers. From the returns of 1841, a summary of which is here given, we find that their number in the United Kingdom was then 1,465,485, or 54 in each 1000 of the entire population.

GREAT BRITAIN.

	MALES.		FEMALES.		TOTAL.
	20 Years and upwards	Under 20 Years.	20 Years and upwards	Under 20 Years.	
Cotton	138,112	59,171	104,470	75,909	377,662
Hose	32,870	5,005	10,140	2,940	50,955
Lace	7,013	1,307	19,785	7,242	35,347
Wool and Worsted	94,764	23,576	29,073	19,883	167,296
Silk	31,924	9,293	26,781	15,775	83,773
Flax and Linen	39,438	10,908	20,821	14,046	85,213
Total	344,121	109,260	211,070	135,795	800,246
Of the above—					
In England and Wales, and Isles in the British Seas	265,609	84,202	162,207	106,490	618,508
In Scotland	78,512	25,058	48,863	29,305	181,738
Total	344,121	109,260	211,070	135,795	800,246

IRELAND.

	MALES.		FEMALES.		TOTAL.
	15 Years and upwards	Under 15 Years.	15 Years and upwards	Under 15 Years.	
Cotton	4,224	276	1,725	190	6,415
Lace	43	1	519	92	655
Wool and Worsted	4,220	47	70,754	2,725	77,746
Silk	446	17	301	6	770
Flax and Linen	24,008	800	107,957	5,844	138,609
Fabric not specified	80,347	4,174	331,369	25,154	441,044
Total	113,288	5,315	512,625	34,011	665,239

We are without the means of comparing these numbers with those of former years; but it will enable us to form an adequate judgment concerning the progress of those branches of industry if we examine the following table, which particularises the number of factories or mills, and the amount of mechanical power and human labour employed therein, in each of the great branches of textile manufacture, in the several divisions of the kingdom, as ascertained by the Inspectors of Factories in 1835 and 1839.—*See* pages 76-78.

Table particularising the Number of Factories, or Mills, and the Amount of Mechanical Power and Human Labour employed therein, in the several Divisions of the Kingdom.

EACH MANUFACTURE.	Total Mills at Work and Empty.			Steam and Water Power together.			Steam Engines and Water Wheels together.			Number of Persons Employed, and Ages.					Total Number of Persons employed in 1835.
	At Work.	Empty.	Together.	Steam.	Water.	Together.	Engines.	Wheels	Together.	Children under 9 Years.	Children between 9 and 13.	Young Persons between 13 and 18.	Adults above 18.	Total Persons.	
COTTON.															
England { Mills and Power	1,598	88	1,686	40,590	9,537½	50,127½	..	..	..	..	10,953	80,871	126,353	218,177	182,092
England { Engines and Wheels	..	..	..	..	..	..	1,422	574	1,966	..	..	..	..	..	..
Wales { Mills and Power	5	..	5	108	140	248	..	..	..	..	78	395	537	1,010	1,151
Wales { Engines and Wheels	..	..	..	..	..	..	7	5	12	..	..	..	..	..	..
Scotland { Mills and Power	192	6	198	5,612	2,728	8,340	..	..	..	..	1,248	14,253	20,075	35,576	32,580
Scotland { Engines and Wheels	..	..	..	..	..	..	193	73	266	..	..	..	..	..	..
Ireland { Mills and Power	24	1	25	517	572	1,089	..	..	..	..	51	1,789	2,782	4,622	4,311
Ireland { Engines and Wheels	..	..	..	..	..	..	19	22	41	..	..	..	..	..	..
Total Mills and Power	1,819	95	1,914	46,827	12,977½	59,804½	..	..	..	..	12,330	97,308	149,747	259,385	220,134
„ Engines and Wheels	..	..	..	..	..	..	1,641	674	2,315	..	..	..	..	..	..
WOOL.															
England { Mills and Power	1,029	47	1,076	10,827	6,884	17,711	..	..	..	..	5,440	17,106	24,529	47,075	65,461
England { Engines and Wheels	..	..	..	..	..	..	558¼	778	1,336¼	..	..	..	..	..	..
Wales { Mills and Power	150	11	161	26	487½	513½	..	..	..	..	330	577	529	1,436	785
Wales { Engines and Wheels	..	..	..	..	..	..	4	159	163	..	..	..	..	..	..
Scotland { Mills and Power	112	5	117	624	1,198	1,822	..	..	..	..	245	2,149	2,682	5,076	3,505
Scotland { Engines and Wheels	..	..	..	..	..	..	37	116	153	..	..	..	..	..	..
Ireland { Mills and Power	31	7	38	58	523	581	..	..	..	..	6	362	863	1,231	1,523
Ireland { Engines and Wheels	..	..	..	..	..	..	5	39	44	..	..	..	..	..	..
Total Mills and Power	1,322	70	1,392	11,535	9,092½	20,627½	..	..	..	..	6,021	20,194	28,603	54,818	71,274*
„ Engines and Wheels	..	..	..	..	..	..	604¼	1,092	1,696¼	..	..	..	..	..	..

* Including Worsted Factories.

Table particularising the Number of Factories, or Mills, &c.—continued.

EACH MANUFACTURE.	Total Mills at Work and Empty.			Steam and Water Power together.			Steam Engines and Water Wheels together.			Number of Persons Employed, and Ages.					Total Number of Persons employed in 1835.
	At Work.	Empty.	Together.	Steam.	Water.	Together.	Engines.	Wheels	Together.	Children under 9 Years.	Children between 9 and 13.	Young Persons between 13 and 18.	Adults above 18.	Total Persons.	
WORSTED.															
England { Mills and Power	416	2	418	5,863	1,313	7,176	..	..	..	..	4,657	14,028	12,943	31,628	..
England { Engines and Wheels	..	..	..	..	..	..	283¾	115	398¾	..	..	..	..	..	..
Wales { Mills and Power	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wales { Engines and Wheels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scotland { Mills and Power	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scotland { Engines and Wheels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ireland { Mills and Power	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ireland { Engines and Wheels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total Mills and Power	416	2	418	5,863	1,313	7,176	..	..	..	..	4,657	14,028	12,943	31,628	..
„ Engines and Wheels	..	..	..	..	..	..	283¾	115	398¾	..	..	..	..	..	..
SILK.															
England { Mills and Power	263	23	286	2,309	922	3,231	..	..	..	962	7,668	11,397	13,528	33,555	29,947
England { Engines and Wheels	..	..	..	..	..	..	201	109	310	..	..	..	..	..	..
Wales { Mills and Power	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wales { Engines and Wheels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scotland { Mills and Power	5	..	5	148	..	148	..	..	..	..	89	334	340	763	686
Scotland { Engines and Wheels	..	..	..	..	..	..	6	..	6	..	..	..	..	..	..
Ireland { Mills and Power	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ireland { Engines and Wheels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	49
Total Mills and Power	268	23	291	2,457	922	3,379	..	..	..	962	7,757	11,731	13,868	34,318	30,682
„ Engines and Wheels	..	..	..	..	..	..	207	109	316	..	..	..	..	..	..

Table particularising the Number of Factories, or Mills, &c.—continued.

EACH MANUFACTURE.	Total Mills at Work and Empty.			Steam and Water Power together.			Steam Engines and Water Wheels together.			Number of Persons Employed, and Ages.					Total Number of Persons employed in 1835.
	At Work.	Empty.	Together.	Steam.	Water.	Together.	Engines.	Wheels	Together.	Children under 9 Years.	Children between 9 and 13.	Young Persons between 13 and 18.	Adults above 18.	Total Persons.	
FLAX.															
England { Mills and Power	169	12	181	3,134	1,130½	4,264½	..	..	..	..	1,421	7,252	7,900	16,573	16,193
England { Engines and Wheels	..	..	..	..	..	..	123	112	235	..	..	..	..	..	..
Wales { Mills and Power	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wales { Engines and Wheels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scotland { Mills and Power	183	7	190	3,350	1,495½	4,845½	..	..	..	..	234	7,373	10,290	17,897	13,409
Scotland { Engines and Wheels	..	..	..	..	..	..	160	91	251	..	..	..	..	..	..
Ireland { Mills and Power	40	4	44	928	1,052	1,980	..	..	..	..	104	4,510	4,403	9,017	3,681
Ireland { Engines and Wheels	..	..	..	..	..	..	32	37	69	..	..	..	..	..	..
Total Mills and Power	392	23	415	7,412	3,678	11,090	..	..	..	..	1,759	19,135	22,593	43,487	33,283
„ Engines and Wheels	..	..	..	..	..	..	315	240	555	..	..	..	..	..	..
TOTAL OF THE FIVE MANUFACTURES.															
At Work	4,217	..	4,217												
Empty	..	213	213												
Incomplete	11	..	11												
Mills	4,228	213	4,441												
Horse Power	..	..	..	74,094	27,983	102,077									
Steam Engines	..	..	..	..	..	..	3,051	..	5,281						
Water Wheels	..	..	..	..	..	..	..	2,230							
Total Number of Persons	..	..	..	..	..	..	..	..	..	..	..	..	..	..	355,373
England	..	..	..	..	..	..	..	..	..	962	30,139	130,654	185,253	347,008	
Wales	..	..	..	..	..	..	..	..	..	..	408	972	1,066	2,446	
Scotland	..	..	..	..	..	..	..	..	..	..	1,816	24,109	33,387	59,312	
Ireland	..	..	..	..	..	..	..	..	..	..	161	6,661	8,048	14,870	
Total	..	..	..	..	..	..	..	..	..	962	32,524	162,396	227,754	423,636	

The persons employed in factories in the several divisions of the kingdom are in very different proportions as respects the total number of persons who were engaged in these several divisions in the production of woven goods: thus—the total number of persons so engaged in England and Wales was 618,508, and the number employed in factories was 349,454, or 56·8 per cent. In Scotland the factory hands were 59,312 out of 181,738 engaged in spinning and weaving, or 32·6 per cent.; while in Ireland the factories gave employment to only 14,870 out of 665,239 persons engaged in this branch of industry, being only 2·2 per cent.

The increase in the number of factory hands between 1835 and 1839 amounted to 68,263, or 19·20 per cent., in the four years between 1835 and 1839, or 4·80 per cent. per annum.

If measured by the amount of labour for which they call, our mines are not of nearly so much importance to the population as the fabrics used for clothing; but it must be evident that this mode of estimating the comparative merits of different branches of industry is incorrect. Without the labour of the 118,233 persons employed in the coal mines of Great Britain, how many of the hands employed in factories must have been idle, or turned to other pursuits!

Number of Persons Employed in Mines in Great Britain, 1841.

DESCRIPTION OF MINES.	MALES.		FEMALES.		TOTAL.
	20 Years and upwards.	Under 20 Years.	20 Years and upwards.	Under 20 Years.	
Coal	83,408	32,475	1,185	1,165	118,233
Copper	9,866	3,428	913	1,200	15,407
Lead	9,427	1,932	40	20	11,419
Iron	7,773	2,679	424	73	10,949
Tin	4,602	1,349	68	82	6,101
Manganese	226	44	4	1	275
Salt	242	24	2	..	268
Mineral not specified	23,694	6,523	466	490	31,173
Total	139,238	48,454	3,102	3,031	193,825
Of the above—					
In England and Wales, and the Isles in the British Seas	125,059	42,919	2,662	2,628	173,268
In Scotland	14,179	5,535	440	403	25,557
Total	139,238	48,454	3,102	3,031	193,825

The number of persons employed in mining operations in Ireland is small, and the returns of 1841 do not admit of their being classified. They were as follows:—

Males 15 Years old and upwards	3016
„ under 15 Years	47
Females 15 Years old and upwards	28
„ under 15 Years	5
Total	3096

A further enumeration of the hands employed in the factories of the United Kingdom was made in 1847, from which it appeared that in the eight years between that time and 1839 the number had increased by 121,240 hands, or 28·62 per cent., or 3·57 per cent. per annum.

It will be seen from the following figures that the greater part of this increase has occurred in England, viz:—

England and Wales	105,588,	or 30·21 per cent.
Scotland	7,931	„ 13·37 „
Ireland	7,721	„ 51·92 „
Total	121,240	

and that it has been divided between the five branches of manufacture as follows:—

Cotton	56,942,	or 21·95 per cent.
Woollen	18,588 }	„ 45·27 „
Worsted	20,550 }	
Flax	14,771	„ 33·96 „
Silk	10,389	„ 30·27 „
Total	121,240	

The numbers from which the above proportions are derived will be found in the Table, page 81.

The number of persons engaged in the manufacture and working of metals in Great Britain in 1841, as stated by the Census Commissioners, was as follows:—

DESCRIPTION OF METALS.	MALES.		FEMALES.		TOTAL.
	20 Years and upwards.	Under 20 Years.	20 Years and upwards.	Under 20 Years.	
Iron	22,670	6,375	301	150	29,496
Copper	1,503	374	120	143	2,140
Lead	915	266	77	35	1,293
Tin	553	351	196	220	1,320
Founders and Smelters, metals not specified	1,151	491	127	204	1,973
Total	26,792	7,857	821	752	36,222
Of the above—					
In England and Wales, and Isles in British Seas	23,775	6,814	790	744	32,123
In Scotland	3,017	1,043	31	8	4,099
Total	26,792	7,857	821	752	36,222

It does not clearly appear upon what principle this statement has been made up. If it were possible for anybody to be misled by it into the belief that the whole number of persons employed in Great Britain in fashioning the various metals into articles of use amounted to the comparatively small number of 36,222 persons, the means of correcting that error are at hand, and in the same volume. It will there be seen that the number of blacksmiths alone, whose occupation it certainly is to give

	ENGLAND AND WALES.			SCOTLAND.			IRELAND.			TOTAL.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Cotton.												
Under 13 Years of Age . .	10,723	6,814	17,537	379	366	745	4	11	15	11,106	7,191	18,297
Between 13 and 18 Years . .	33,814	47,944	81,758	3,046	8,661	11,707	592	773	1,365	37,452	57,378	94,830
Above 18 Years	78,783	98,950	177,733	5,796	16,868	22,664	954	1,849	2,803	85,533	117,667	203,200
Total	123,320	153,708	277,028	9,221	25,895	35,116	1,550	2,633	4,183	134,091	182,236	316,327
Woollen.												
Under 13 Years of Age . .	4,206	3,068	7,274	80	58	138	2	1	3	4,288	3,127	7,415
Between 13 and 18 Years . .	10,624	8,253	18,877	1,312	1,754	3,066	79	144	223	12,015	10,151	22,166
Above 18 Years	23,135	13,401	36,536	4,023	2,410	6,433	452	404	856	27,610	16,215	43,825
Total	37,965	24,722	62,687	5,415	4,222	9,637	533	549	1,082	43,913	20,493	73,406
Worsted.												
Under 13 Years of Age . .	3,453	3,884	7,337	..	..	..	..	..	..	3,453	3,884	7,337
Between 13 and 18 Years . .	4,452	10,767	15,219	4	52	56	21	46	67	4,477	10,865	15,342
Above 18 Years	7,228	22,013	29,241	58	29	87	80	91	171	7,366	22,133	29,499
Total	15,133	36,664	51,797	62	81	143	101	137	238	15,296	36,882	52,178
Flax.												
Under 13 Years of Age . .	836	752	1,588	109	296	405	9	27	36	954	1,075	2,029
Between 13 and 18 Years . .	2,385	4,517	6,902	1,973	4,253	6,226	2,458	4,235	6,693	6,816	13,005	19,821
Above 18 Years	3,837	7,513	11,350	3,465	11,234	14,699	3,128	7,231	10,359	10,430	25,978	36,408
Total	7,058	12,782	19,840	5,547	15,783	21,330	5,595	11,493	17,088	18,200	40,058	58,258
Silk.												
Under 13 Years of Age . .	2,951	4,777	7,726	17	59	76	..	..	..	2,968	4,836	7,804
Between 13 and 18 Years . .	3,603	9,310	12,913	63	330	393	..	..	..	3,666	9,640	13,306
Above 18 Years	7,218	15,831	23,049	141	407	548	..	..	..	7,359	16,238	23,597
Total	13,772	29,918	43,690	221	796	1,017	..	..	..	13,993	30,714	44,707
Totals.												
Under 13 Years of Age . .	22,169	19,295	41,464	585	779	1,364	15	39	54	22,769	20,113	42,882
Between 13 and 18 Years . .	54,878	80,791	135,669	6,398	15,050	21,448	3,150	5,198	8,348	64,426	101,039	165,465
Above 18 Years	120,201	157,708	277,909	13,483	30,948	44,431	4,614	9,575	14,189	138,298	198,231	336,529
Grand Total . .	197,248	257,794	455,042	20,466	46,777	67,243	7,779	14,812	22,591	225,493	319,383	544,876

useful forms to iron, amounts to 97,340; of nail-makers, nearly all of whom are employed upon the same metal, a few only making copper nails, the number is 20,311; brass-founders and braziers, not included in the above table, amount to 13,064; the various branches of cutlery employ 11,075 persons; the making of needles and pins furnishes employment to 3854 individuals; there are 3479 boiler-makers; 4298 file-makers; 5521 locksmiths; 9670 workers in tinned plate wares, and smaller numbers of persons employed in making a great variety of other metal articles, such as anchors and chain cables, anvils, bits, bolts, cocks, files, grates, ranges, stoves, rivets, shot, springs, stirrups, spurs, wire, &c. &c., comprehending altogether, with the number given in the foregoing table, and the number of miners employed in raising the metals, a gross number of 303,368 persons, whose industry is given in Great Britain alone to the production and fashioning of iron, copper, lead, and tin, with their various compounds.

In Ireland, the number of persons engaged in mining operations is, as already stated, only 3,096, and of these some part are employed in raising coal, so that it is not possible to assign with accuracy the proper number engaged in raising and smelting metals. Besides these there were, in 1841, employed in various handicraft operations with metals, 37,034 persons, viz.:—

	15 Years and over.	Under 15 Years.	Total.
Males	35,913	768	36,681
Females	308	45	353
Total	36,221	813	37,034

Of these, there were 25,185 blacksmiths, 6276 nailers, 2522 whitesmiths and tinplate workers, 546 iron-founders, 929 braziers and coppersmiths, and 490 cutlers and tool-makers; the remaining 1077 persons being divided among a variety of minor employments. It thus appears that 340,402 persons apply their industry to the raising, preparing, and fashioning of metals in the United Kingdom. This number does not include persons whose employment it is to distribute, either wholesale or retail, the articles thus fashioned.

The proportions which the adult male population employed in agriculture bore, in 1841, to the whole inhabitants of the several counties of England, Wales, and Scotland, were as follows:—

ENGLAND.

	Per Cent.		Per Cent.
Bedford	11·87	Devon	6·01
Berks	10·20	Dorset	9·21
Bucks	11·81	Durham	3·60
Cambridge	11·97	Essex	12·29
Chester	5·58	Gloucester	5·99
Cornwall	6·62	Hereford	12·30
Cumberland	7·03	Hertford	10·48
Derby	6·11	Huntingdon	12·25

ENGLAND—*continued.*

	Per Cent.		Per Cent.
Kent	7·44	Southampton	8·57
Lancaster	2·49	Stafford	4·75
Leicester	7·03	Suffolk	11·91
Lincoln	13·28	Surrey	3·64
Middlesex	0·95	Sussex	8·99
Monmouth	5·10	Warwick	5·08
Norfolk	10·37	Westmorland	9·63
Northampton	11·02	Wilts	10·69
Northumberland	5·52	Worcester	7·45
Nottingham	9·69	York, East Riding	9·56
Oxford	10·55	„ City and Ainsty	4·63
Rutland	13·05	„ North Riding	10·56
Salop	9·25	„ West Riding	3·61
Somerset	8·35		

WALES.

Anglesea	11·4	Flint	6·52
Brecon	7·82	Glamorgan	4·65
Cardigan	9·71	Merioneth	11·37
Carmarthen	10·03	Montgomery	11·29
Carnarvon	9·70	Pembroke	8·76
Denbigh	10·08	Radnor	14·03

SCOTLAND.

Aberdeen	8·32	Kincardine	11·39
Argyle	8·60	Kinross	8·48
Ayr	5·32	Kirkcudbright	9·63
Banff	9·06	Lanark	2·34
Berwick	11·76	Linlithgow	6·74
Bute	6·79	Nairn	10·54
Caithness	9·25	Orkney and Shetland	7·75
Clackmannan	3·82	Peebles	10·50
Dumbarton	4·65	Perth	8·30
Dumfries	8·84	Renfrew	3·06
Edinburgh	2·52	Ross and Cromarty	9·50
Elgin or Moray	9·25	Roxburgh	9·14
Fife	5·30	Selkirk	8·70
Forfar	4·20	Stirling	5·77
Haddington	11·24	Sutherland	10·17
Inverness	10·21	Wigton	10·48

The distribution of the population of France in regard to occupations offers a striking contrast to the distribution which has been shown to exist in this country. In a paper on the comparative situation of the poor in France and England, drawn up by Monsieur Frederic Lullin de Chateauvieux, and communicated to the late Board of Commissioners for inquiring into the administration and operation of the Poor Laws in England, a statement is given in which the French population is divided into classes in the following proportions:—

Total population		32,000,000
Town population	7,000,000	
Land proprietors and their families	20,000,000	
Agricultural labourers and their families	3,000,000	
Artisans employed in agricultural districts	2,000,000	
		32,000,000

Supposing the family of each proprietor of land to consist of five persons, France contains four millions of proprietors, who are subdivided by M. de Chateauvieux as follows:—

		Hectares of Land.
Large Proprietors.		
1st Class	42,409, possessing	8,481,800
2nd „	51,622 „	4,516,925
Moderate Proprietors.		
1st Class	86,069 „	4,819,864
2nd „	258,000 „	7,388,003
Small Proprietors.		
1st Class	774,621 „	7,843,494
2nd „	2,787,112 „	12,650,914

According to this calculation the average quantity of land held by each individual, in the two classes designated as large proprietors, amounts to 138 hectares, or 340 English acres; the average quantity assigned as the possession of moderate proprietors amounts to 35½ hectares, or 88 English acres; while the land held by small proprietors, if equally divided among their whole number, would amount to no more than 5¾ hectares, or 14¼ acres for each.

In the collection of "Documents Statistiques sur la France," published in 1835 by the Minister of Commerce in Paris, the number of landed proprietors is stated to be 10,896,682, which gives only 11¼ English acres as the average size of the farms in that country. This extent must, however, be far below the truth; and as there can be no doubt of the accuracy of the numbers as stated in the French official tables, it is probable that each proprietor has been reckoned distinctly for each of the several pieces of land which he holds in separate parishes or communes.

The division of the soil of France, according to the nature of its employment, is stated by M. de Chateauvieux as under:—

	Hectares.		English Acres.
Total Superficies	53,702,871	equal to	132,646,091
Sterile and unimprovable	3,702,871	„	9,146,091
Vineyards and plantations	2,000,000	„	4,940,000
Forests	6,842,623	„	16,901,279
Pasture	1,157,377	„	2,858,721
Meadow land	5,000,000	„	12,350,000
Artificial grasses (Lucerne, &c.)	4,000,000	„	9,880,000
Arable land	31,000,000	„	76,570,000
	53,702,871		132,646,091

It appears from this division that in each 100 parts

4 are devoted to the production of liquids, including oil;
13¼ „ „ of wood, which is chiefly used as fuel;
20¼ „ to the support of animals; and
62 „ to the production of cereal grains, &c.
100

About 4,500,000 hectares (11,115,000 acres) are supposed to be held by the government and by municipal bodies.

It is estimated by Monsieur de Chateauvieux, that among the small proprietors of land in France 1,243,200 are possessed of various quantities, none of them exceeding 2 hectares (about 5 acres); an extent altogether insufficient for the support of a family consisting of the average number of five persons, since in the present state of agriculture in that country it requires 1 hectare and 23 ares of land (3 English acres) to furnish means of support for one individual. In addition to the land, each of these little properties is supposed to comprise a dwelling with a small garden, in which vegetables are raised, and by including this addition to the means of the family, three-fifths of their wants are supplied. For the remaining two-fifths, the individuals composing the families of these small proprietors are obliged to apply themselves to some other source, and in so far partake of the condition of labourers. In some cases, the freehold thus held is so small, that the proprietor is only distinguishable from the mere peasant by the possession of his dwelling and garden. In the wine-producing districts many of these peasant proprietors assist as vine-dressers in the cultivation of the larger properties, and in this way a family is said to add about 200 francs (8*l.*) in the season to its otherwise scanty provision. Where circumstances permit them, these labouring proprietors hire land in the vicinity of their estates and farm the whole, or it frequently happens that they let their little patches, which are insufficient for their support, to others similarly circumstanced, and hire themselves as farm servants on larger domains. A great many among the farming labourers in France are small proprietors, and we may suppose that such would naturally meet with a preference on the part of employers, who thus have an assurance of their respectability, and a security for their good conduct, which can never be given to the employers of labourers in this country, where they have been too generally dependent in part for their support upon the parish pay-table. The extent to which the subdivision of land is carried in France, under the operation of the law of inheritance, is productive of so many disadvantages to the country generally, that it is well some good can be ascribed to it, which may tend, in however small a degree, to diminish its evils.

CHAPTER IV.

PAUPERISM.

Origin and progress of Poor Laws—Act 43rd Elizabeth—Amount expended at various periods for relief of Poor—Injurious tendency of the system—Means employed for its amendment—Sums expended for Poor in England and Wales in each year of the present century—Proportion of Payments to Population at each decennary enumeration—Results of Law of 1834—Poor Law of Ireland—Of Scotland—Methods followed in various countries for relieving the Poor—In Norway—in Sweden—In Denmark—In Mecklenburgh—In Prussia—In Würtemberg—In Bavaria—In the Canton of Berne—In France—In Holland—In Belgium—Labourers' earnings in England, &c.

THE system of compulsory maintenance for the poor, which has been in operation in England and Wales since the 43rd year of the reign of Elizabeth, has at various times afforded occasion for warmer controversy than almost any other matter affecting the internal condition of this country.

The attention of the English legislature was indeed drawn to the subject of the maintenance of the poor more than two hundred years before the period just mentioned. So early as 1388, an Act was framed and passed, providing "that a convenient sum shall be paid and distributed yearly out of the fruits and profits of the several churches, by those who shall have the said churches in proper use, and by their successors, to the poor parishioners in aid of their living and sustenance for ever." Until the era of the Reformation, when so many richly-endowed religious establishments were seized by the crown and appropriated to secular uses, the poor had generally found in them a source of relief from their distresses. It would appear, however, that the claims of indigence must, even before the suppression of religious houses, have exceeded the means or the will for their relief on the part of the possessors of ecclesiastical revenues, for, by the Act 27 Henry VIII., the officers of towns are directed to collect alms for the purpose of keeping "sturdy vagabonds and valiant beggars" to continual labour. This Act further directs "every preacher, parson, vicar, and curate, to exhort, move, stir, and provoke people to be liberal for the relief of the impotent, and for keeping and setting to work the said sturdy vagabonds." By another clause it was provided "that a sturdy beggar is to be whipped for the first offence, his right ear cropped for the second; and, if he again offend, to be sent to the next gaol till the quarter sessions, there to be indicted for wandering, loitering, and idleness; and, if convicted, shall suffer

execution as a felon and an enemy of the commonwealth." The inundation of mendicancy which appears at this time to have overspread the country, had, in all probability, chiefly originated out of the first great breaking up of the feudal system, by the permission given in the preceding reign to the great landed proprietors to dispose of their estates,—a change which speedily occasioned the dispersion of all those numerous bands of retainers which used to be fed by every lord of the soil. This state of things could not but be aggravated by the subversion of the religious establishments in 1539, from which time, until the close of the reign of Elizabeth, many statutes were passed relative to vagrancy and mendicity.

The reasons already offered, when viewed in connexion with the then existing condition of society, will perhaps account for the extent of the evil, and may be received in extenuation of the harshness of the law by which it was sought to provide a remedy. Unhappily, it is by no means peculiar to the times of the last of our Henries, and his immediate successors, that in seeking to remove a pressing evil, the symptoms only should be dealt with, leaving untouched the causes of the mischief. In our own day we are forced to acknowledge, that the same unstatesmanlike and unchristian mode of dealing with this subject has been adopted by us as was pursued 300 years ago by legislators who were without the experience by which we should be guided. The object of legislation at both periods has been the management of paupers, while the adoption of a system for the removal of pauperism has been neglected. If, instead of visiting with punishment of the severest kind, those who fell into a condition which they had little or no means of avoiding, our ancestors had set themselves to provide those means by the imparting of knowledge, and the inculcation of principles of independence, as well as by forbearing to place shackles upon the skill and industry of the people, although we might, no doubt, have still had ample opportunity for the exercise of benevolence in solacing misfortune, it may be confidently believed, that the legislature of our day would have been relieved from all necessity for considering any system of poor laws.

It is to the Act 43rd of Elizabeth that we owe the system which, till very recently, has provided in England and Wales for the compulsory maintenance of the poor. That the system then introduced has since been greatly abused and applied to purposes which did not enter into the contemplation of the legislature of that day cannot be doubted. The chief provisions of the Act of Elizabeth gave to the overseers of the poor power to levy upon the inhabitants of their respective parishes, "such sums as should be necessary to support the aged and infirm parishioners, and for setting to work all persons using no ordinary and daily trade of life to get their living by." Confined within this limit, laws for the maintenance of the poor appear to be in agreement with the plainest principles of humanity, which enjoin upon every one the duty of relieving the unde-

served distresses of his fellow-creatures. Unhappily, the fund thus directed to be employed for the necessary relief of the impotent, and for setting to work persons capable of labour, has been applied to purposes wholly opposed to the spirit, if not to the letter of that law, and that to a degree and in ways which have proved destructive to the morals of the working classes, and highly injurious to the interests of the community.

It was not until a long time after the passing of the Act of Elizabeth, that the disastrous effects just alluded to sprung out of its provisions. So recently as the reign of George II., the amount raised within the year for poor rates and county rates in England and Wales was only 730,000*l.* This was the average amount collected in the years 1748-49-50. In 1775 the amount was more than doubled, having been 1,720,000*l.*; of which sum rather more than a million and a half was expended for the relief of the poor. The war of American independence had been commenced, and was followed by hostilities with France, the vast public expenditure occasioned by which, crippled the resources of the people, and aggravated the distresses of the poor. From that time to the close of the last French war in 1814, the sums levied for poor rates were in a state of continued progression. The average sum expended for the relief of the poor in the three years from 1812-13, to 1814-15, amounted to 6,123,177*l.*; but this sum, enormous as it is, has since been surpassed; the average of the three years, 1831, 32, and 33, was 6,875,552*l.*, and the amount expended in the single year ending the 25th of March, 1818, was even greater than this by nearly a million, having been 7,870,801*l.* The year last mentioned was one of great hardship to the poor, in consequence of the dearness of provisions; the average price of wheat during the year 1817 having been 94*s.* 9*d.* per quarter.* The increased pressure, however, was not simultaneously felt throughout the kingdom. In Berkshire, the largest amount of money for the relief of the poor was expended in 1812; in Nottinghamshire and Brecon, the most expensive year was 1816; in the whole of Wales, with the exception of Brecon, Anglesea, and Carnarvon, it occurred in 1818, which was also the dearest year in Devonshire, Gloucestershire, Northamptonshire, Rutlandshire, Surrey, Warwickshire, and the East and North Ridings of Yorkshire. Cumberland, Leicestershire, and the West Riding of Yorkshire, were called upon for the heaviest contributions in 1819. Huntingdonshire expended most in 1826; Bedfordshire and Lincolnshire in 1829; Middlesex, Cambridgeshire, and Anglesea, in 1831; and Carnarvon in 1832. With these exceptions, the largest expenditure was made in every county in the year already mentioned, *viz.*, between the 25th of March, 1817, and the same day in 1818.

A feeling had long prevailed, that the injurious tendency of our system of poor laws was aggravated by the mode of their administration, and

* The quantity of foreign wheat brought into consumption in the two years, 1817 and 1818, exceeded 2,600,000 quarters.

inquiries of a partial nature had from time to time been undertaken by the legislature, with the hope of palliating the mischief, and of finding out some method of mitigating the evils of pauperism, without abandoning the dictates of humanity. Little or no good was found to result from those inquiries. The subject was so vast, and the practical evils attending it were so widely spread and deeply seated, that it required an investigation far more laborious and minute than could be completed by any committee of Lords, or Members of the House of Commons, who had other and pressing calls upon their attention. Under these circumstances it was perhaps the wisest plan that could be adopted by the Government to appoint a Board of Commissioners, who should make "a diligent and full inquiry into the practical operation of the laws for the relief of the poor, and into the manner in which those laws are administered." The Commissioners thus appointed were persons whose education, experience, and station in society, eminently qualified them for carrying on, zealously, judiciously, and effectually, the laborious task intrusted to them. The mass of information which, in a comparatively short space of time, they collected and embodied, affords the best testimony that can be offered in favour of their fitness for the undertaking. The report which was presented to the Government by the Commissioners in February, 1834, was so widely circulated, and so freely canvassed, that it cannot be necessary to enter upon the examination of its various details, nor could it be attended with any profitable result to discuss, at much length, the propriety of the various remedial measures which it proposed, and which were in great part adopted by the legislature. It will be sufficient here to state, that the opinion before so generally held as to the desirableness of a radical change, at least in the mode of administering the laws for the relief of the poor, was strengthened by means of the Report of the Commissioners into a conviction of the necessity of that change in order to arrest the rapid and total demoralization of the working classes, which was fatally counteracting all the efforts of philanthropists for enlightening the minds and improving the condition of the labouring poor. The Act "for the Amendment and better Administration of the Laws relative to the Poor in England and Wales," received the Royal assent on the 14th of August, 1834, but although it has now been for more than sixteen years in operation, it is not yet possible to judge dispassionately the effects of a measure which is hardly second in importance to any of the legislative reforms brought about since the year 1830.

The following table (p. 90) exhibits the amount of money expended for the relief of the poor in England and Wales, the number of inhabitants, the average price of wheat, and the number of quarters of that grain for which the money so expended might have been exchanged during different years in the present century.

Years.	Sums Expended for Relief of the Poor.	Population of England and Wales.*	Average Price of Wheat per Quarter.	Number of Quarters of Wheat for which the Money could have been Exchanged.
	£.		s. d.	
1801	4,017,871	8,872,980	115 11	693,234
1803	4,077,891	9,148,314	57 1	1,428,751
1811	6,656,105	10,163,676	92 5	1,440,455
1814	6,294,581	10,775,034	72 1	1,746,474
1815	5,418,846	10,979,437	63 8	1,702,255
1816	5,724,839	11,160,557	76 2	1,503,240
1817	6,910,925	11,349,750	94 0	1,470,409
1818	7,870,801	11,524,389	83 8	1,881,466
1819	7,516,704	11,700,965	72 3	2,080,748
1820	7,330,256	11,893,155	65 10	2,226,913
1821	6,959,249	11,978,875	54 5	2,557,763
1822	6,358,702	12,313,810	43 3	2,940,440
1823	5,772,958	12,508,956	51 9	2,231,094
1824	5,736,898	12,699,098	62 0	1,850,612
1825	5,786,989	12,881,906	66 6	1,740,447
1826	5,928,501	13,056,931	56 11	2,083,221
1827	6,441,088	13,242,019	56 9	2,269,987
1828	6,298,000	13,441,913	60 5	2,084,855
1829	6,332,410	13,620,701	66 3	1,911,671
1830	6,829,042	13,811,467	64 3	2,125,772
1831	6,798,888	13,897,187	66 4	2,049,916
1832	7,036,968	14,105,645	58 8	2,398,966
1833	6,790,799	14,317,229	52 11	2,566,601
1834	6,317,255	14,531,957	46 2	2,736,717
1835	5,526,418	14,703,002	44 2	2,502,528
1836	4,717,630	14,904,456	39 5	2,393,723
1837	4,044,741	15,105,909	52 6	1,540,853
1838	4,123,604	15,307,363	55 3	1,492,684
1839	4,421,712	15,508,816	69 4	1,275,494
1840	4,576,965	15,710,270	68 6	1,336,340
1841	4,760,929	15,911,757	65 3	1,459,288
1842	4,911,498	16,113,214	64 0	1,534,843
1843	5,208,027	16,314,671	54 4	1,917,065
1844	4,976,093	16,716,128	51 5	1,935,595
1845	5,039,703	16,917,585	49 2	2,050,048
1846	4,954,204	17,119,042	53 3	1,860,733
1847	5,298,787	17,320,499	59 0	1,796,199
1848	6,180,764	17,521,956	64 6	1,916,515
1849	5,792,963	17,723,413	49 1	2,360,460

It will be seen from this table, that in years of dearth, in which the largest sums have been distributed to the poor, the tax for their relief, if estimated by its equivalent quantity of wheat, has borne the lightest upon the community. The money expended for the relief of the poor in 1776 amounted to 1,530,800*l.*, and might have been exchanged for 802,165 quarters of wheat; whereas, in 1801, when the amount expended exceeded that of 1776 by 162 per cent., the quantity of wheat for which it could have been exchanged was lessened by 13 per cent. The fact is, that in a year of scarcity and high prices, while even the wealthiest classes feel the pressure in the shape of increased rates, and the mass of the community in a diminution of the means of consumption, it is a natural consequence that paupers also should bear their share of the general inconvenience, and should, as well as those by

* The numbers given in this column for the years 1801, 1811, 1821, 1831, and 1841, are those ascertained at the enumerations of those years: the numbers stated for intermediate and for subsequent years are computed from the baptisms and burials, and from the rate of increase as ascertained at each census.

whom they are supported, consume less food than in ordinary years. It must, too, be borne in mind that bread absorbs only a part, although certainly a considerable part, of the poor man's expenditure, and that the remaining articles required for his sustenance are not, equally with grain, affected in price by a deficient harvest.

If viewed as a question of money expenditure only, it will not be found that the sums raised for the relief of the poor bear more heavily upon the people now than at the beginning of the present century. If the whole sum collected for that purpose in each of the years when the enumerations of the population have been made be divided in equal proportions among all the inhabitants of England and Wales, it will be found that the payments were—

	s.	*d.*	
In 1801	9	1	for each
1811	13	1	„
1821	10	7	„
1831	9	9	„
1841*	6	0	„

The increase observable between the first of these periods and 1831, amounting to $7\frac{1}{2}$ per cent., is assuredly more than made up by the increased amount of capital in the country. The greater increase between 1801 and 1811 is more apparent than real. If allowance be made for the difference in the value of the currency—the price of gold having been 4*l.* 16*s.* per ounce in 1811—it will be found that the proportion for that year was equivalent to 10*s.* 8*d.* for each person, measured in currency of the standard value.

It is not asserted, however, that because the proportional sum thus expended had increased in so small a degree, therefore pauperism had not made a greater advance in 30 years than $7\frac{1}{2}$ per cent. Owing to the operations of the war and a succession of deficient harvests, the prices of almost all articles required for the support of life were, at the beginning of this century, driven up to a distressing height, which state of things continued through the remaining period of the war, and for one or two years beyond its termination. Since then the fall that has occurred in the prices of all articles comprising the poor man's expenditure has been so great that we may fairly estimate it to be fully equal to the simultaneous fall in the price of grain, so that the sum of 9*s.* 9*d.* in 1831 would have purchased as much as 17*s.* would have bought in 1801. Applying this test, we shall find that the weight of pauper expenditure, in proportion to the population at the two periods, was as 7 in 1831 to 4 in 1801.

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* The averages in the years following 1841 have been—

	s.	*d.*		*s.*	*d.*
In 1842	6	$1\frac{1}{4}$	In 1846	5	$10\frac{1}{2}$
1843	6	$5\frac{1}{2}$	1847	6	$2\frac{1}{2}$
1844	6	$0\frac{3}{4}$	1848	7	$1\frac{3}{4}$
1845	6	$0\frac{1}{4}$	1849	6	$6\frac{1}{2}$

Need more be said to show the necessity that had arisen for grappling with an evil of such enormous and constantly-increasing magnitude?—an evil, the tendency of which was to set against each other different classes of the community, to dry up the sources and to blunt the feelings of benevolence on the part of those who are made to contribute, while it engendered dispositions of recklessness and idleness among those who received support. Shall we be wrong in ascribing to such compulsory contributions, administered as the law was, a quality the very reverse of that ascribed by our immortal bard to mercy—

> ——— "it is twice blessed,
> It blesseth him that gives, and him that takes?"

The foregoing table (page 90) exhibits the relief which was afforded to the rate-payers by the amendment of the law. In the year ending 25th March, 1832, the sum raised and expended for the relief of the poor in England and Wales had amounted to 7,036,968*l.*, being equal to an average payment for the whole population of 9*s.* 11½*d.* per head. In the following two years the amount was somewhat lessened through the vigilance excited on the part of parochial authorities by the inquiries of the Government Commissioners; and in the first year that followed the amendment of the law, the relief to the rate-payers amounted, as compared with the sum just stated, to 1,510,550*l.*, or 27½ per cent., the average payment per head having been 7*s.* 6½*d.* The relief has since been even greater; the average payment in the year ending 25th March, 1849, the latest yet ascertained, having been no more than 6*s.* 6½*d.* for each member of the community, showing a saving of 30 per cent. upon the actual payments made in the year 1831-2, and of 40 per cent., if measured according to the increased numbers of the population.

The advantage to rate-payers of the change of system regarding the relief of the indigent, will be made sufficiently apparent by the above figures, but something beyond this result is required in order to justify that change, since the saving of money might have been effected through the sacrifice of our social duties, and at the expense of all the better feelings of our nature. The charge of heartlessness has, in fact, been so often brought and urged against the authors of the change, that it may be well to inquire, however briefly, whether that charge be well founded or otherwise.

One of the greatest evils which had grown up under the administration of the old poor law, was the practice of paying the wages of labour partly out of rates levied for the relief of the indigent poor. The injustice of this practice is now fully acknowledged. It was unjust towards those persons who contributed to the rates, and who, if even they gave employment to labourers, could not, or did not, adopt that method of lessening wages; but it was far more unjust towards the labourers themselves, inflicting upon them evils, both moral and physical, which were reflected back upon society in a thousand ways. Under such a system,

a labourer in an agricultural district was inevitably rendered a pauper; he was deprived of all means for exercising the virtue of prudence, and became almost necessarily improvident; he was brought to look upon the parish allowance as his freehold; and if, under such circumstances, any spark of independence remained unextinguished in his breast, it should have been received as evidence of a degree of innate virtue deserving of the highest admiration.

The system in question awarded payment for labour, not according to the value of services performed, but with reference to the number of the family to be maintained, whence it frequently happened that in order to keep down the rates, employment was given to the man who, by means of his large family, was a burthen upon the parish, while the prudent and industrious man, who had avoided that evil, was condemned to pass his days in idleness. Payment for services when thus awarded, were kept down to the lowest level at which nature could be sustained, and at seasons when it no longer suited the farmer to give employment, the whole labouring part of the rural population might be, and often was, thrown for subsistence upon the parish rates. It was clearly not in the power of any individual employer to act upon a different system. If he should have paid his labourers a rate of wages for the time they were employed, sufficient for the decent maintenance of themselves and their families during the whole year, he would have been found also to pay, in the form of poor rates, a part of the wages of the labourers employed by his neighbours, which would have been unjust and ruinous. To meet this evil what has been called the *workhouse test* was adopted. This consisted in the offer to give relief out of the parish fund only to those applicants and their families who would become inmates of workhouses. In the face of this offer the farmer has been compelled to pay the labourer the full amount of wages needed for his continued subsistence. In practice it has been found, that the farmer who should dismiss his labourers at the slack season has but a poor chance of securing their services at other times, and he has consequently been induced to give permanent employment to the more deserving and industrious among them.

It has been popularly supposed that the *workhouse test*, rendered necessary by the abuses here shortly described, has been so applied as to bring great hardship upon a large and deserving class of persons, when from any circumstances, whether personal or general, they should be temporarily deprived of employment. That this supposition is erroneous is made apparent by official returns, showing the number of persons receiving aid from the parish funds at their own dwellings as well as those supported in Union Houses. From these returns it is shown that in the quarter ending at Lady-day in each year from 1840 to 1848 there were relieved of paupers—

Years.	In-door.	Out-door.	Total.
1840	169,232	1,030,297	1,199,529
1841	192,106	1,106,942	1,299,048
1842	222,642	1,204,545	1,427,187
1843	238,560	1,300,930	1,539,490
1844	230,818	1,246,743	1,477,561
1845	215,325	1,255,645	1,470,970
1846	200,270	1,131,819	1,332,089
1847	265,037	1,456,313	1,721,350
1848	265,140	1,361,061	1,626,201

Among these the adult and able-bodied paupers relieved were—

Years.	IN-DOOR.			OUT-DOOR.			TOTAL.		
	Through Sickness or Accident.	From other causes, including Vagrancy.	Total.	Through Sickness or Accident.	From other causes, including Vagrancy.	Total.	Through Sickness or Accident.	From other causes, including Vagrancy.	Total.
1842	10,922	74,249	85,171	134,641	192,078	326,719	145,563	266,327	411,890
1843	10,888	88,308	99,196	146,704	220,685	367,389	157,592	308,993	466,585
1844	11,458	86,327	97,785	158,280	175,419	333,699	169,738	261,746	431,484
1845	11,407	76,216	87,623	167,277	165,196	332,473	178,684	241,412	420,096
1846	11,258	74,413	85,671	144,394	152,352	296,746	155,652	226,765	382,417
1847	13,485	109,739	123,224	202,403	236,728	439,131	215,888	346,467	562,355
1848	15,084	140,795	155,879	203,373	307,086	510,459	218,457	447,881	666,338

From what has been here said and from the foregoing figures it must at once be evident that, in the interest of the labouring class, the adoption of some plan which should render them less dependent upon their employers than they had become under the poor law as administered up to 1834, was absolutely necessary, and that the course pursued, while it is the best adapted to that end of any that could be proposed, has not been used for the oppression of the poor.

It would be incorrect to suppose that the amount saved by the payers of rates was just so much abstracted from the sum applied to the relief of indigence. There had grown up under the administration of the old law a variety of gross abuses which intercepted a considerable portion of the money. Plunder and jobbing of all kinds were the usual accompaniments of the system, and it is by no means surprising that persons who were allowed to benefit themselves in this manner should have become violent opponents of a change which has introduced order and economy into the various branches of parish expenditure whence they had previously drawn their irregular gains.

The power steadily enforced upon all fitting occasions for refusing relief to the able-bodied, except within the workhouses, has had an effect for the extent of which it is difficult fully to account, in converting the idle to habits of industry, and by that means increasing the demand for labour, since employers can now rely upon obtaining its value for the money which they so disburse. The following extract from a letter written by Mr. Woolley, formerly a land-agent, now an Assistant-Commissioner for the Commutation of Tithes, and addressed to Mr. Gulson, one of the Assistant Poor Law Commissioners, states the advantages to the labouring population of a measure which some persons have

ventured to stigmatise as replete with cruelty; and draws from his observation a conclusion which cannot but be gratifying to every candid and generous mind:—

"I wanted to talk with you on the almost magical effect I find produced by the new poor laws in the south. There I had seen the evil in its 'riotings.' I saw no chance but ruin or change—prompt, effectual, decided, radical change. I began to fear the thing had been pushed too far, the remedy too long deferred; but I am perfectly delighted to find that I was mistaken. The change has been made, and the effect is more than any one could have hoped. I have in my professional engagement as Assistant Tithe Commissioner, been much in Sussex and the Weald of Kent. I have seen the effect on the poor-rates, the character of the population, the improvement of the land—such a change! I have talked with all sorts of persons, of all sorts of opinions on other subjects, and have heard but one opinion on this—that the measure has saved the country.

"I am sick of the pitiful cry attempted to be raised against the measure, and especially at the supposed inhumanity of it. Let any man see the straightforward walk, the upright look of the labourer, as contrasted with what was before seen at every step in those counties. The sturdy and idle nuisance has already become the useful industrious member of society. No man who has not looked well into human nature and the practical working of the wretched system of pauperism, can form an idea how different is sixpence earned by honest industry, and sixpence wrung from the pay-table of a parish officer. I am fully convinced that the measure has doubled the value of property in many parts of the kingdom.

"This is important; but pounds, shillings, and pence will not measure the value of the change in character which is already visible, and which I am well convinced will develop itself more and more."

The following Table (pp. 96, 97,) exhibits the amount expended in each county for the relief of the poor in the individual years when the census was taken, and also the average amount per head that would have been paid on this account in each county if the burthen had been equally distributed among the whole number of the inhabitants. It appears from this calculation that although the actual expenditure was greater in 1836-37 than it was in 1801 by the sum of 893,620*l.*, or a little more than 22 per cent., the virtual diminution has been upwards of 32 per cent. When compared with 1811 the saving in 1841 amounts to 53 per cent.; it is 41 per cent. upon the disbursements of 1821, and 37 per cent. upon those of 1831.

In describing the proportionate numbers of persons engaged in agriculture and in other pursuits (Chap. III.), a table has been given in which is stated the numerical order in which the counties of England stood relatively to each other in those respects in 1811, 1821, 1831, and 1841.

COUNTIES.	1801		1811		1821		1831		1841	
	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.
	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.
Bedford	36,891	11 7	61,273	17 5	68,826	16 5	81,016	16 11	42,346	7 10
Berks	81,994	15 0	160,873	27 2	104,338	15 9	115,070	15 10	76,841	9 7
Bucks	86,155	16 0	133,949	22 9	117,477	17 6	137,356	18 8	77,227	9 11
Cambridge	54,484	12 2	85,884	16 11	87,872	14 5	98,522	13 8	73,019	8 11
Chester	66,627	6 11	114,370	10 0	104,081	7 8	103,572	6 2	83,188	4 3
Cornwall	54,648	5 9	103,736	17 10	104,178	8 1	102,151	6 9	80,495	4 9
Cumberland	27,603	4 8	44,985	6 8	52,352	6 8	46,167	5 5	36,892	4 2
Derby	54,459	6 9	93,963	10 1	86,756	8 1	78,717	6 7	60,972	4 6
Devon	124,022	7 2	217,757	11 4	207,686	9 5	233,074	9 0	194,192	7 3
Dorset	64,771	11 2	109,304	17 6	85,647	11 10	90,668	11 4	81,870	9 4
Durham	51,966	6 5	81,752	9 2	91,182	8 9	81,862	6 5	71,101	4 5
Essex	137,140	12 1	312,230	24 8	254,837	17 7	272,593	17 2	167,550	9 9
Gloucester	109,045	8 8	165,576	11 7	152,994	9 1	168,288	8 8	133,306	6 2
Hereford	46,471	10 5	82,981	17 7	62,728	12 1	62,622	11 3	43,625	7 7
Hertford	56,380	11 6	76,701	13 8	89,129	13 9	94,336	13 1	63,274	8 1
Huntingdon	23,867	12 8	35,413	16 9	39,429	16 2	40,474	15 2	25,892	8 10
Kent	206,508	13 5	317,990	17 0	370,711	17 4	345,512	14 5	206,715	7 7
Lancaster	148,282	4 4	306,797	7 4	249,585	4 8	293,226	4 4	290,834	3 6
Leicester	79,911	12 3	110,560	14 8	124,244	14 2	113,951	11 6	75,200	7 0
Lincoln	95,575	9 2	129,343	10 10	168,786	11 11	174,055	10 11	104,169	5 9
Middlesex	349,200	8 6	502,967	10 6	582,055	10 2	681,567	10 0	476,248	6 0
Monmouth	18,283	8 0	28,247	9 1	26,040	7 3	26,613	5 5	24,997	3 9
Norfolk	169,733	12 5	291,501	19 11	256,044	14 10	299,357	15 4	184,114	8 11
Northampton	94,607	14 4	139,675	19 9	145,093	17 10	150,816	16 9	88,201	8 10
Northumberland	52,416	6 8	72,821	8 5	77,505	7 9	74,092	6 7	68,717	5 6
Nottingham	44,222	6 3	88,013	10 9	73,315	7 10	72,717	6 5	65,384	5 3
Oxford	88,689	16 2	143,108	24 0	115,646	16 10	130,043	17 1	78,148	9 8
Rutland	8,276	10 1	11,168	13 7	10,575	11 5	8,809	9 1	7,576	7 1

Salop	66,747	7	11	106,318	10	11	92,907	9	0	87,111	7	9	57,427	4	10
Somerset	121,790	8	10	185,407	12	2	153,906	8	7	178,047	8	9	160,975	7	5
Southampton	124,019	11	3	225,601	18	4	193,294	13	7	215,229	13	8	140,997	7	11
Stafford	83,411	6	11	124,765	8	5	133,702	7	10	132,887	6	5	92,977	3	8
Suffolk	119,963	11	4	225,714	19	3	240,384	17	9	270,651	18	3	138,729	8	10
Surrey	133,874	9	11	217,757	13	5	242,921	12	2	265,389	10	10	200,478	6	11
Sussex	179,858	22	6	314,270	32	0	262,246	22	6	263,908	19	4	147,427	9	10
Warwick	117,353	11	3	157,932	13	9	146,185	10	7	161,212	9	6	100,458	5	0
Westmoreland	13,836	6	7	22,338	9	8	27,207	10	7	26,586	9	7	18,480	6	7
Wilts	128,635	13	10	234,352	24	2	163,168	14	8	198,194	16	6	137,338	10	7
Worcester	71,235	10	2	101,109	12	7	83,761	9	1	83,513	7	10	63,277	5	5
York—East Riding	41,388	7	5	83,752	10	4	97,522	10	6	100,976	11	11	72,037	6	3
„ North Riding	48,702	6	1	70,860	8	4	82,638	8	9	83,931	8	9	61,051	6	0
„ West Riding	186,469	6	7	328,113	10	0	273,301	6	9	274,586	5	7	264,654	4	7
Total of England	3,869,509	9	5	6,421,225	13	5	6,102,253	10	11	6,509,466	9	11	4,638,398	6	2
Anglesey	6,167	3	8	9,278	5	1	13,332	5	11	16,247	6	8	17,526	6	11
Brecon	10,170	6	5	14,976	7	11	16,366	7	6	18,542	7	9	16,688	6	3
Cardigan	7,118	3	4	12,386	4	11	14,885	5	1	17,591	5	5	18,412	5	5
Carmarthen	12,760	3	9	23,548	6	1	27,283	6	0	33,598	6	8	33,856	6	4
Carnarvon	6,830	3	3	12,493	5	0	16,226	5	7	21,905	6	5	22,791	5	7
Denbigh	19,480	6	7	32,427	10	1	32,658	8	6	35,126	8	5	31,241	7	0
Flint	12,784	6	5	19,454	8	4	19,470	7	2	20,559	6	10	19,205	5	9
Glamorgan	21,968	6	2	33,287	7	9	36,179	7	1	38,751	6	1	37,008	4	3
Merioneth	7,776	5	8	12,280	7	11	14,559	8	5	14,865	8	4	14,652	7	6
Montgomery	20,281	8	5	32,297	12	5	33,273	11	1	34,815	10	5	28,251	8	2
Pembroke	14,278	5	1	20,390	6	8	20,245	5	5	24,552	6	0	23,404	5	4
Radnor	8,757	9	2	12,065	11	6	11,974	10	7	13,571	11	0	10,066	8	0
Total of Wales	148,369	5	5	234,880	7	8	256,450	7	2	289,422	7	2	273,100	6	0
„ England	3,869,509	9	5	6,421,225	13	5	6,102,253	10	11	6,509,466	9	11	4,638,398	6	2
Total of England and Wales	4,017,878	9	1	6,656,105	13	1	6,358,703	10	7	6,798,888	9	9	4,911,498	6	2

The following table repeats the information as regards the last of those years, and gives a further column showing the relation of the counties to each other in respect of payments for the relief of the poor. In this table, No. 1 in the respective columns signifies the county in which are the greatest number of agriculturists—the county in which are the greatest number belonging to non-agricultural classes, and the county in which the assessment for the relief of the poor is the least, with reference to the population.

Table showing the Numerical Order in which the different Counties of England stood relatively to each other, with reference to the Proportional Number of their Population engaged in Agriculture or otherwise, at the Decennary Enumeration of 1841, *and also with reference to the burthen of Poor Rates in the Year* 1841–42.

COUNTIES.	Agricultural Classes.	Other Classes.	Poor Rate Assessment.	COUNTIES.	Agricultural Classes.	Other Classes.	Poor Rate Assessment.
Bedford . . .	10	33	28	Monmouth . . .	35	8	3
Berks	12	31	37	Norfolk	16	27	34
Bucks . . .	7	36	41	Northampton . .	13	30	32
Cambridge . .	8	35	35	Northumberland .	33	10	14
Chester . . .	34	9	5	Nottingham . . .	28	15	12
Cornwall . . .	23	14	9	Oxford	14	29	38
Cumberland . .	26	17	4	Rutland	2	41	23
Derby. . . .	32	11	7	Salop	19	24	10
Devon . . .	22	21	24	Somerset	23	20	25
Dorset . . .	21	22	36	Southampton . .	25	18	29
Durham . . .	38	5	6	Stafford	37	6	2
Essex	3	40	39	Suffolk	9	34	31
Gloucester . .	31	12	18	Surrey	39	4	21
Hereford. . .	4	39	26	Sussex	18	25	40
Hertford . . .	15	28	30	Warwick	36	7	11
Huntingdon . .	5	38	33	Westmoreland . .	20	23	20
Kent	27	16	27	Wilts	6	37	42
Lancaster . .	41	2	1	Worcester . . .	24	19	13
Leicester . .	30	13	22	York, East Riding .	17	26	19
Lincoln . . .	1	42	15	„ North Riding	11	32	16
Middlesex . .	42	1	17	„ West Riding .	40	3	8

It appears from this table that the burthen of the poor's rate in proportion to the population is generally greatest in the most agricultural counties. Suffolk, Norfolk, Wiltshire, Oxfordshire, Buckinghamshire, Essex, and Cambridgeshire, all essentially agricultural, are the most heavily burthened with poor; while Lancashire, the West Riding of Yorkshire, Cheshire, Staffordshire, Nottinghamshire, and Derbyshire, which are of an opposite character, enjoy a comparative exemption from that burthen.

Until the year 1838 the poor of Ireland were entirely without legal provision for their relief. From time to time the state and condition of the poorer classes in that island formed a subject for public inquiry, forced as it was upon the attention of Parliament by the ravages of disease brought on by destitution. There were, it is true, various penal statutes against vagrancy, which had mostly fallen into disuse, through the impossibility of repressing the evil, and perhaps also, in some degree,

through their undue severity, the penalty of transportation being awarded under the mere authority of a Grand Jury presentment; but the idea of removing, by any general legislative provision, the necessity for acts of vagrancy, was not, until the date above mentioned, acted upon by the state. County infirmaries, fever hospitals, dispensaries, and lunatic asylums were indeed established and supported, in whole or in part, by means of assessments ordered by the Grand Juries. There were, too, and there still are, many charities maintained by private benevolence, unaided by either general or local taxation, and these have been most liberally supported, chiefly by the middling and even the poorer classes. One who spoke from an extensive and intimate acquaintance with the subject—Dr. Doyle—stated in evidence before a Select Committee of the House of Commons that sat in 1830,—"If I were to speak till the sun went down, I could not convey a just picture of the benevolence prevailing in the minds and hearts of the middling classes of Ireland; but it is sufficiently proved by this, that the poor are almost supported exclusively by them, although they form a class not over numerous, and subject to great pressure; still, of the million and a-half, or two millions now expended to support the Irish poor, nearly the entire falls on the farmers and other industrious classes." By the word farmers we must not understand the generally substantial class passing under that name in England, but persons, for the most part, renting and cultivating with their own hands from two to ten acres of land, with little or no capital, and too often subsisting themselves and their families upon the lowest description of food.

The various committees, by whom this subject was from time to time considered, appear to have shrunk from the responsibility of recommending for adoption in Ireland the unreformed system of poor-laws as administered in England; but in the session of 1838, when some experience had been gained of the working of the amended law of 1834, an Act was passed "for the more effectual relief of the destitute poor in Ireland," based upon the provisions of the reformed English law, and conforming to it as nearly as the different circumstances of the country would permit, the administering of the law being placed under the Poor Law Commissioners of England, one of whom is to reside in Ireland.

Some opposition to the execution of this law was to be expected at first, where rates were compulsively levied for an object which all did not equally acknowledge to be one of duty and necessity, but this has now almost entirely ceased, and the law is administered with regularity, and with equal advantage to all classes of the community. In the 11th Report of the Poor Law Commissioners (dated 1st May, 1845), it was stated that out of 130 Unions of parishes into which Ireland is divided

for the purposes of the Act, there were 126 in which the law had been put in operation, and it is believed that at this time the remaining four are organized and in action.

The delay that has intervened between the passing of the Act in 1838 and its perfect operation, was rendered unavoidable through the system of "the workhouse test," time having been required for the erection of so many buildings adapted for the purpose in all parts of Ireland. The expenditure for the relief of the poor, as stated in the Reports of the Commissioners, have been as follows:—

Years.		£.
1840	4 Unions . .	37,057
1841	37 „ . .	110,275
1842	92 „ . .	281,233
1843	106 „ . .	244,375
1844	112 „ . .	269,529
1845	112 „ . .	280,945
1846	123 „ . .	425,183
1847	130 „ . .	803,684
1848	131 „ . .	1,835,310
1849	131 „ . .	2,177,650

During the six months ending 31 March, 1848, 1849, and 1850, the expenditure was:—

Years.	£.
1848	807,146
1849	977,671
1850	658,175

Expended in 32 counties of Scotland, comprising 880 parishes, for the relief of the poor.

Year ending	On Management. £.	On Litigation. £.	On Actual Relief. £.	Total. £.
14 May, 1847	43,168	5,023	385,743	433,934
14 May, 1848	42,034	5,719	485,709	533,462

It cannot, perhaps, in strictness be said, that Scotland was, until 1845, without a law for providing means of relief to the indigent; but inasmuch as it depended upon the will of the parties who should have furnished the needful funds to put the law in force, and as, with only two exceptions, the heritors in the different Scottish counties refused or omitted to tax themselves for the relief of their less fortunate fellow-creatures, it may be said, that until the passing of the Act 8 and 9 Victoria, c. 83, there was no legal provision made for the poor of Scotland. Voluntary offerings, to a small amount, were indeed always made for that purpose, and intrusted for distribution to the *Kirk Session* of each parish, but the degree of relief which that body was thus empowered to afford was, in almost every case, so limited as to be a perfect mockery of charity. Now that the subject has been investigated by authority, that the condition of the destitute poor of Scotland has been laid bare to the world, and that the legislature has been aroused to the

performance of its duty towards them, it may seem harsh to give utterance to feelings which could hardly fail to be excited by an examination of the evidence presented to Parliament in 1844. It requires, indeed, no small degree of forbearance to limit all comment to an expression of astonishment that in any country calling itself Christian, and especially in one where so much stress is laid upon the outward observances of religion, a degree of heartless neglect as regards the calls of humanity, such as is recorded by the Commissioners, could have been allowed to exist.

The Act above cited received the Royal assent on the 4th of August, 1845. An examination of its provisions leads to the belief that it was framed with a greater leaning towards the prejudices and supposed interests of the rich, than towards the wants and social rights of the poor; and it appears probable, that at no distant day the legislature must be called upon to remedy some, at least, of its deficiencies.

It is a common error to suppose that the institution of Poor Laws is peculiar to England. Monsieur de Chateauvieux, whose "*Recherches sur la situation comparative des Pauvres en France et en Angleterre*," is contained in the (Appendix F) to the Report of the Commissioners on the Poor Laws, remarks on this head, that "the existence of a tax in favour of the poor under one form or another, may be recognised in almost every fully-peopled country." He instances, in support of this position, the distribution of wheat in consular Rome; and, in more recent times, the alms enjoined by the Christian religion; the bequests made to the clergy by persons in order to ease their consciences, and which bequests were very commonly declared by the donors to be intended for distribution among the poor; the hospitals and infirmaries endowed at the period of the Crusades; and the institutions of a still later period for the maintenance of foundlings and for supporting and educating the children of the poor.

The instances here cited are, however, widely different in their character from the English Poor Laws, either as regards their original object or their modern mode of administration. Whatever sums were given or bequeathed under the different forms mentioned by Mons. de Chateauvieux were voluntary offerings, sometimes the fruit of compunctious visitings, but more frequently the offspring of benevolent feelings, and the objects designated for relief do not in any case appear to have been healthy able-bodied labourers, or their families.

Instead of endeavouring to institute any comparison between conditions of society so dissimilar to our own as those here referred to, it will be more profitable to state briefly the methods at present employed in various civilized communities for the relief of their distressed poor, and to point out, as well as the limited means of information permit,

COUNTIES.	1801		1811		1821		1831		1841	
	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.
	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.
Bedford	36,891	11 7	61,273	17 5	68,826	16 5	81,016	16 11	42,346	7 10
Berks	81,994	15 0	160,873	27 2	104,338	15 9	115,070	15 10	76,841	9 7
Bucks	86,155	16 0	133,949	22 9	117,477	17 6	137,356	18 8	77,227	9 11
Cambridge	54,484	12 2	85,884	16 11	87,872	14 5	98,522	13 8	73,019	8 11
Chester	66,627	6 11	114,370	10 0	104,081	7 8	103,572	6 2	83,188	4 3
Cornwall	54,648	5 9	103,736	17 10	104,178	8 1	102,151	6 9	80,495	4 9
Cumberland	27,603	4 8	44,985	6 8	52,352	6 8	46,167	5 5	36,892	4 2
Derby	54,459	6 9	93,963	10 1	86,756	8 1	78,717	6 7	60,972	4 6
Devon	124,022	7 2	217,757	11 4	207,686	9 5	233,074	9 0	194,192	7 3
Dorset	64,771	11 2	109,304	17 6	85,647	11 10	90,668	11 4	81,870	9 4
Durham	51,966	6 5	81,752	9 2	91,182	8 9	81,862	6 5	71,101	4 5
Essex	137,140	12 1	312,230	24 8	254,837	17 7	272,593	17 2	167,550	9 9
Gloucester	109,045	8 8	165,576	11 7	152,994	9 1	168,288	8 8	133,306	6 2
Hereford	46,471	10 5	82,981	17 7	62,728	12 1	62,622	11 3	43,625	7 7
Hertford	56,380	11 6	76,701	13 8	89,129	13 9	94,336	13 1	63,274	8 1
Huntingdon	23,867	12 8	35,413	16 9	39,429	16 2	40,474	15 2	25,892	8 10
Kent	206,508	13 5	317,990	17 0	370,711	17 4	345,512	14 5	206,715	7 7
Lancaster	148,282	4 4	306,797	7 4	249,585	4 8	293,226	4 4	290,834	3 6
Leicester	79,911	12 3	110,560	14 8	124,244	14 2	113,951	11 6	75,200	7 0
Lincoln	95,575	9 2	129,343	10 10	168,786	11 11	174,055	10 11	104,169	5 9
Middlesex	349,200	8 6	502,967	10 6	582,055	10 2	681,567	10 0	476,248	6 0
Monmouth	18,283	8 0	28,247	9 1	26,040	7 3	26,613	5 5	24,997	3 9
Norfolk	169,733	12 5	291,501	19 11	256,044	14 10	299,357	15 4	184,114	8 11
Northampton	94,607	14 4	139,675	19 9	145,093	17 10	150,816	16 9	88,201	8 10
Northumberland	52,416	6 8	72,821	8 5	77,505	7 9	74,092	6 7	68,717	5 6
Nottingham	44,222	6 3	88,013	10 9	73,315	7 10	72,717	6 5	65,384	5 3
Oxford	88,689	16 2	143,108	24 0	115,646	16 10	130,043	17 1	78,148	9 8
Rutland	8,276	10 1	11,168	13 7	10,575	11 5	8,809	9 1	7,576	7 1

provide themselves with any, or to obtain sureties for the payment of their taxes, are denominated unprotected. Such persons are placed almost at the disposal of the police, who allow them a fixed period in which to obtain employment. If they fail in this object they are made to labour on public works.

It appears that under the existing system pauperism has increased in Sweden in a greater ratio than the population, and it is feared that the moral effect produced upon the labouring class by the existence of a fund upon which they have a legal claim has occasioned, although not in an equal degree, many of those evils which the same system has brought about in England. The daily wages of artisans are 1*s.* 7*d.*, and of skilled agricultural labourers 7*d.* or 8*d.*, while the unskilled obtain no more than 3*d.* or 4*d.* Families can subsist upon their earnings. Agriculturists in the southern provinces live upon salt fish and potatoes; in the northern provinces porridge and rye-bread form their food. Artisans sometimes are able to procure a little meat. The annual expenditure in the family of a small farmer is stated by Mr. Liddell, the English consul at Gottenburg, at 10*l.* 18*s.* 10*d.* In an agricultural family the disbursements are about two-thirds of this amount.

The social condition of Russia, where the great bulk of the people are kept in a state of serfdom by the owners of the soil, is so little analogous to that of England, that it would throw but little light upon our subject to explain the regulations enforced in that country for the maintenance of the poor.

In Denmark each Kiöbstæd, or market town (of which there are 65 in the kingdom), and each parish in the country, forms a district for the management of its own poor. All persons are considered entitled to relief "who are unable with their own labour to earn the means of subsistence, and thus, without the help of others, would be deprived of the absolute necessaries of life."

The persons to whom relief is given are divided into three classes: first—aged, sick, and infirm persons; second—orphans, foundlings, deserted children, and the children of parents who are unable to support them; third—families or single persons who are unable to earn a sufficiency for the support of themselves or their children.

Paupers of the first class are provided with food, lodging, clothing, and medical attendance, either in private dwellings or in establishments belonging to the parishes. Children are placed in private families, where they are brought up and educated at the expense of the parish until they can be apprenticed or otherwise placed out in life. Paupers of the third class are so relieved that they may not be without the absolute necessaries of life, but they are compelled to work to the best of their ability for their maintenance. It is part of the duty of those by whom the system is administered to find work for the poor at the

usual rate of wages; where the amount earned is insufficient, assistance is afforded, not in money, but in articles of food and clothing.

The Danish law has established the principle, that every person receiving relief under the Poor Laws is bound, either with his property or his labour, to refund the amount disbursed for him. On relief being afforded to a pauper, an inventory and appraisement of his effects are made, and these, after having been marked with a stamp, are delivered over to him for his use; any person who receives goods so marked, either by way of purchase or pledge, must restore them or pay their value, and is besides subject to fine. The parish has also a claim upon property acquired subsequent to the granting of relief, and is the legal heir to the effects of every one for whom it is under advances. Whenever a person refuses to pay his debt to the parish by instalments, he may be compelled to work for the benefit of the same, and if he attempts to leave the parish he is imprisoned. The amount of these instalments is awarded in proportion to the means of the pauper, by commissioners. Begging is prohibited, and when committed is punished by imprisonment.

The money required for relieving paupers is contributed to a parochial fund by householders, landowners, tradesmen, and even by servants and labouring mechanics; in short, by all persons who are not themselves receiving parish aid, and who can contrive to pay anything without depriving themselves of the necessaries of life.

The introduction of this system into Denmark is of recent date: it did not come into operation until 1803. The means, therefore, are in our hands for drawing a comparison between the condition of the poor and of the country generally as affected by poor-laws, and that condition as it existed previous to their adoption.

It is stated, that before the introduction of the present Poor Law system, distress among the poor was much greater than it has been since, and that begging, which is now prevented, was then quite common throughout the country, and was carried on in the most rapacious and importunate form, so as to amount to a heavy exaction on the peasantry, as well as a most intolerable annoyance; for "the beggars, when their demands were not satisfied, had recourse to insolence and threats, nay, even to acts of criminal vengeance. This is no longer the case, and in so far, therefore, the present system has been beneficial." Mr. Browne, our Secretary of Legation at the Court of Copenhagen, gives, however, a not very satisfactory account of the working of the system, and states that it has produced a most injurious effect upon the industry of the people; that it has lowered the middle men to be poor men, and that it has converted the labouring poor into paupers. "It tends," says Mr. Browne, "to harden the heart of the poor man, who demands with all that authority with which the legal right to provision invests him. There is no thankfulness for what is gotten, and what is given is afforded

COUNTIES.	1801		1811		1821		1831		1841	
	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.	Expended for relief of the Poor.	Average Expenditure per head.
	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.
Bedford	36,891	11 7	61,273	17 5	68,826	16 5	81,016	16 11	42,346	7 10
Berks	81,994	15 0	160,873	27 2	104,338	15 9	115,070	15 10	76,841	9 7
Bucks	86,155	16 0	133,949	22 9	117,477	17 6	137,356	18 8	77,227	9 11
Cambridge	54,484	12 2	85,884	16 11	87,872	14 5	98,522	13 8	73,019	8 11
Chester	66,627	6 11	114,370	10 0	104,081	7 8	103,572	6 2	83,188	4 3
Cornwall	54,648	5 9	103,736	17 10	104,178	8 1	102,151	6 9	80,495	4 9
Cumberland	27,603	4 8	44,985	6 8	52,352	6 8	46,167	5 5	36,892	4 2
Derby	54,459	6 9	93,963	10 1	86,756	8 1	78,717	6 7	60,972	4 6
Devon	124,022	7 2	217,757	11 4	207,686	9 5	233,074	9 0	194,192	7 3
Dorset	64,771	11 2	109,304	17 6	85,647	11 10	90,668	11 4	81,870	9 4
Durham	51,966	6 5	81,752	9 2	91,182	8 9	81,862	6 5	71,101	4 5
Essex	137,140	12 1	312,230	24 8	254,837	17 7	272,593	17 2	167,550	9 9
Gloucester	109,045	8 8	165,576	11 7	152,994	9 1	168,288	8 8	133,306	6 2
Hereford	46,471	10 5	82,981	17 7	62,728	12 1	62,622	11 3	43,625	7 7
Hertford	56,380	11 6	76,701	13 8	89,129	13 9	94,336	13 1	63,274	8 1
Huntingdon	23,867	12 8	35,413	16 9	39,429	16 2	40,474	15 2	25,892	8 10
Kent	206,508	13 5	317,990	17 0	370,711	17 4	345,512	14 5	206,715	7 7
Lancaster	148,282	4 4	306,797	7 4	249,585	4 8	293,226	4 4	290,834	3 6
Leicester	79,911	12 3	110,560	14 8	124,244	14 2	113,951	11 6	75,200	7 0
Lincoln	95,575	9 2	129,343	10 10	168,786	11 11	174,055	10 11	104,169	5 9
Middlesex	349,200	8 6	502,967	10 6	582,055	10 2	681,567	10 0	476,248	6 0
Monmouth	18,283	8 0	28,247	9 1	26,040	7 3	26,613	5 5	24,997	3 9
Norfolk	169,733	12 5	291,501	19 11	256,044	14 10	299,357	15 4	184,114	8 11
Northampton	94,607	14 4	139,675	19 9	145,033	17 10	150,816	16 9	88,201	8 10
Northumberland	52,416	6 8	72,821	8 5	77,505	7 9	74,092	6 7	68,717	5 6
Nottingham	44,222	6 3	88,013	10 9	73,315	7 10	72,717	6 5	65,384	5 3
Oxford	88,689	16 2	143,108	24 0	115,646	16 10	130,043	17 1	78,148	9 8
Rutland	8,276	10 1	11,168	13 7	10,575	11 5	8,809	9 1	7,576	7 1

through the assistance of relations, has a claim for support on the parish in which he has the right of a burgher or a beisitzer. If a man is too poor to purchase the right of a beisitzer, he is assigned as such by the police of some parish, without payment of any fine of admission. The care of the poor is carried by the government to such an extent, that if in times of scarcity any person should perish through the neglect of the overseers, the officers guilty of that neglect would be prosecuted with rigour.

"A large proportion of the parishes throughout the kingdom possess a fund called *pium corpus*, arising partly from voluntary contributions and other casual receipts, but principally from funds which, before the Reformation, had been employed for the purposes of the Roman Catholic worship, and instead of being confiscated by the government, as was the case in England, were directed to be employed for charitable purposes. In the year 1817, and during the dearth that prevailed at that time, an old law which had fallen into desuetude was revived, according to which the opulent who, after having been applied to for voluntary contributions, should not come forward in a manner suitable to their property, are to be taxed by the magistrates in a sum conformable to their income, and according to all the circumstances of their situation."

Able-bodied persons who claim support from the public funds are compelled to work for moderate wages. It is sometimes difficult to find employment for the poor, on which account there are in the capital and some other places public establishments for employing them in spinning and similar work. In most of the towns there are poor-houses into which aged and infirm people are received; and, where such places of refuge are not provided, the poor are received at all the houses in the town in turn, or else are put out to board permanently at some private house, the cost of their maintenance being defrayed out of the local funds.

The statement from which the foregoing particulars have been derived was drawn up by order of the Wurtemberg government in 1834, at the request of the English minister. At the conclusion of this statement we find the following remarks, which seem to favour the opinion that the evils which have been experienced in this country are inseparable from the system of establishing a legal claim for relief on the part of the able-bodied poor.

"If we now compare the situation of one of the poorest of the Wurtemberg poor who support themselves independently by their labour, with that of one of the more favoured among the Wurtemberg poor who lives by public charity, for instance the inmate of a hospital and even of a prison, it might certainly appear that the condition of the latter is preferable to that of the former.

"In fact, we often see such hospital inmates, and even prisoners,

attain the most advanced age, while many a poor day-labourer and artisan sinks at a much earlier age under the weight of his cares and the want of necessaries. Many an inmate of a hospital and many a prisoner, even with bodily infirmities and sufferings, still seems to find his condition quite comfortable, and shows himself thankful for the good he enjoys, while many a day-labourer or artisan, in the enjoyment of good bodily health, feels himself miserable and curses his existence; in fact, many a one seeks admission into the hospital who would be very well able to provide himself with necessaries by his work at home. The man often separates from his wife, or the wife from her husband or from the children to be received into the hospital. Many a one does not economise, but squanders what he has, and does not work in order to earn something, because he thinks that he always has the right of being received into the hospital as a last resource. In many places, where there are rich hospitals and other foundations, the number of the poor is proportionally greater than in places where less is done for their support; many a one continues to beg and to steal who has already been frequently imprisoned for these offences, because he finds his situation in the workhouse very tolerable in comparison with the laborious life of a poor man at liberty."

The wages of artisans are in towns from 1 to 2½ florins (1*s.* 8*d.* to 4*s.* 2*d.*), and in the country from ¼rd of a florin to 1 florin (6¾*d.* to 1*s.* 8*d.*) per week, in addition to food and lodging. Labourers, who are likewise most commonly fed and lodged by their employers, receive in towns from 50 to 60 florins (4*l.* 3*s.* 4*d.* to 5*l.*) and in villages from 20 to 40 florins (1*l.* 13*s.* 4*d.* to 3*l.* 6*s.* 8*d.*) per annum. When they provide themselves with food and lodging, they receive 150 florins (12*l.* 10*s.*) per annum; in addition to which they are furnished with food and fuel in the winter under the market price. The wife and children may earn from 40 to 50 florins more. With these means they can provide a sufficiency of wholesome food, including meat once or twice in the week.

Every town and village in Bavaria must have an institution for the relief of the poor, with this exception, that if several neighbouring villages join to support one establishment for that purpose in common, every encouragement is given to them for that end. All the inhabitants are bound to contribute to the support of the poor in their district according to their ability; every one is also bound in the same manner to support his poor relations.

The aged and helpless poor are provided for in *houses of nourishment.* Other paupers, who are incapable of working, but who yet do not require any extraordinary care, obtain relief in money, which, however, is not given without complete proof of want being brought forward; the amount is made to depend upon the price of provisions. The able-bodied paupers are maintained in buildings which are strictly work-

houses; bad conduct and idleness on their part are punished by the magistrates. Marriage is not allowed between people without capital, unless with the previous permission of those who manage the poor institution of the district. Clergymen who marry such people without that permission are liable for their maintenance in case of their becoming chargeable. This restriction is assigned as one great cause of the want of any excess of population in Bavaria, and of the general absence of extreme poverty and misery in that country.

Labourers are paid at the rate of 8*d.* per day in the country, and from 8*d.* to 1*s.* 4*d.* in the towns.

The Canton of Berne is the only other community in Europe in which the inhabitants have a legal claim to support when in poverty. So early as the 17th century, it there became the law, that every one was entitled to receive such support out of the public property of the commune to which he belonged; and, if this property should fall short of the required amount, then from the landed proprietors of the commune, as well as from contributions levied upon the possessors of personal property.

The abuses which have grown up under this system are numerous and serious. Vagabondage, improvidence, imprudent marriages, and the illicit commerce of the sexes, have all been favoured by the prospect which the people have of being able to devolve the consequences of these delinquencies upon others. All means of obtaining instruction in general knowledge, and of acquiring any useful art, have been neglected; the physical and intellectual faculties of the people have been deadened, and their sense of honest pride has been so blunted, that no one blushes at being known to live upon the public benevolence. Experience has clearly shown that the number of poor has increased in proportion as the number and amount of the resources for their relief have been multiplied, and that in those communes which possess the largest revenues applicable to that purpose, the population is the most backward, and the least industrious. In the answer given to the queries of our Poor Law Commissioners by the government of the Canton, we find it stated that "numerous examples might be cited where whole families have lived in dependence upon the commune from year to year, and even from generation to generation, and who have found in that resource their means of existence, while examples of a contrary nature are extremely rare."

At the period of the Revolution, the clergy of France were possessed of property valued at upwards of two hundred millions sterling, which was confiscated by the government, and sold for the benefit of the state. Out of the revenues derived from this property much had been devoted to uses of charity. The numerous charitable institutions which, at the period alluded to, existed in every part of France, for the relief of the sick and infirm, and for the support of foundlings, survived in great

part the social disorders of the Revolution, and in some cases have since received augmentation. In the present day, the municipal councils of all the towns in France, whose population exceeds 20,000, and of some where the number of inhabitants is smaller, set apart for the relief of the poor certain proportions of the town revenues, which are devoted to the support of hospitals, or placed at the disposal of charitable associations, —*Bureaux de Bienfaisance.* The revenues out of which these sums are assigned are, in very small part, derived from property actually possessed by the towns, the greater proportion, and in many cases the whole, being the produce of "octroi" duties, which are levied upon all articles of provision brought into the towns for consumption. It is, therefore, only in form that this tax differs from the assessments for the support of the poor in England, the sole difference being, that with us the rates form a direct tax, while in France they are collected indirectly, and, therefore, with less regard to economy. Asylums for beggars, and workhouses, are supported in France at the expense of the state, but those institutions can hardly be considered as belonging to the subject under examination, being used chiefly as places of correction for the idle and dissolute, under the direction of the police.

In the volume of "Documents Statisques sur la France," published under the authority of M. Duchâtel, the Minister of Commerce in that country, it is stated that the sums devoted to charitable purposes, and for the support of foundling hospitals, in the chief towns of France, amounted in 1833 to 10,573,043 francs (422,921*l.*) The sums expended in the same year in the Bureau de Bienfaisance, in the different departments, amounted to 8,956,036 francs (358,241*l.*), and the number of persons among whom this sum was distributed in their own dwellings was 695,932. The revenues of the different hospitals and almshouses in France are likewise stated to have amounted, in 1833, to 51,222,063 francs (2,048,882*l.*), and the expenditure to 48,842,097 francs (1,953,683*l.*) The number of distressed persons admitted during the year into these establishments was 425,049. The number remaining at the beginning of the year having been 154,253, and at its close 152,830, we may conclude that the inmates to be found in these institutions can seldom be much, if at all, below 150,000.

It appears that by far the greater part of the funds raised for charitable purposes is disbursed in the towns. The total amount of money thus raised in 1833, in the different departments, was 14,560,183 francs (582,407*l.*), of which sum nearly three-fourths were, as we have seen, appropriated to the poor in the principal towns, the population of which is to the rural population in the proportion of 7 to 25. According to Mons. de Chateauvieux, the greater part of the money raised in the departments for the maintenance of the poor, and which is not disbursed in the large towns, is applied in the small towns and villages to the

support of lunatic asylums and foundling hospitals. With this partial exception, France is without any public provision for the relief of its rural poor, and it becomes, therefore, highly interesting to inquire in what manner so large a number of our fellow-creatures are enabled to meet the ills and accidents of life.

In order to pursue this inquiry to any satisfactory result, it is necessary to explain the peculiar circumstances in which the agricultural population is placed by the operation of the law which ordains the division of landed property among all the children of the family. In the "Documents Statisques" of the French government, it is stated that the total number of proprietors throughout the kingdom is 10,896,682, giving an average of about 4½ hectares, or 11¼ English acres for each proprietor. But there is reason for supposing that the number thus given is greatly exaggerated by the custom of registering proprietors for each separate commune in which they possess property, by which means the same person may be reckoned several times over. It is besides obvious that, as the soil is not equally distributed among the whole body of proprietors, and some of them are in possession of estates of considerable extent, many others must have even less than the small share which would result from its equal division. In fact, it will be found that the great majority are unable to draw from their possessions sufficient for the subsistence of their families. Hence it arises that a very large proportion of proprietors let their land, and hire themselves as farm-servants to others, or follow some trade or handicraft in the towns. It is also common among the families of these peasant proprietors, that on the death of a father leaving several children, among whom the law provides for the equal distribution of the land, an arrangement is made, under which, although the whole number are registered as proprietors, which it is their pride to be, the management of the property is left in the hands of one, by whom a pecuniary allowance is made to the rest, according to the circumstances of the case.

These cases occur to so great an extent throughout the kingdom, that it is probable M. de Chateauvieux is correct in the opinion expressed by him in the paper so often quoted, that the number of proprietors in actual possession and administration of the soil does not exceed four millions, representing, with their families, a population of twenty millions, and that of this number of proprietors, about five-sixteenths (1,243,200), representing a population of 6,126,000 individuals, are owners of small parcels of land, not any one of which is of greater extent than two *hectares* (5 acres). A farm of this extent is wholly inadequate to the support of a family, and it is more than probable, that if France had adopted a system of poor-laws similar to those lately in force in this country, these proprietors would speedily have sunk into the rank of paupers. The means by which, in the absence

of such a system, they have been and are enabled to struggle through life, are thus described by M. de Chateauvieux:—"The same village includes proprietors of different grades, and in different social positions. This difference is observable between next-door neighbours, and often between those even who dwell under the same roof. The proprietor of 10 *hectares* is the friend, the brother-in-law, the uncle, or the nephew of one who possesses only two. The day-labourer lodges with the opulent cultivator by whom he is employed, and the necessity which thus arises throughout the country for mixing and communicating with each other brings about a connexion between them. Under these circumstances, the wife of the proprietor of 20 hectares will not leave her poor neighbour without help at her lying-in; her trunks being well provided with linen, she will lend it; her saucepan is well filled, and she will provide her poor neighbour with broth, she will give potatoes to her children, and even bread if they are without it. These helps, distributed in quantities which escape statistical remark, and throughout all the rural districts of France, are not given in the form of charity, but as signs of good neighbourhood: they never take the form of money, but only of articles needed at the moment. Those who have been the objects of these good offices, return them to the donors in kind and according to what they possess, that is, with their labour and their good will. If a proprietor stands in need of assistance, either for removing a large piece of timber, or to house his sheaves, when the storm threatens, in a moment the shoemaker and the saddler quit their shops, and all run to place their exertions at the disposal of the farmer, who, by this means, stores his harvest in safety, a glass of cider sufficing as payment for the service.

"It must not be forgotten, that even the smallest proprietors have each a home which is their own; that their bit of land, however limited, will always produce some fruits and vegetables for the family use; that they can generally keep a goat, and very frequently rear a few vines, possessing, in fact, as much which is their own property, as the peasant in Ireland can only procure for a rent of five guineas. Notwithstanding the breaches which the Revolution has made in the property of the communes, many of these still possess woods and commons, which are devoted to the use of the inhabitants.

"It is a very general custom throughout France, to give day-labourers small plots of ground to cultivate with green crops, on the condition of yielding half the produce to the proprietors, the expenses of cultivation, with the exception of the labour, being contributed in equal proportions. The plan most usually adopted is to give up the land in the winter to the labourers, under the condition of its being restored in the beginning of October in a condition to be sown with corn. The advantage of the proprietor in this practice is, that, sacrificing half a crop, he, without

any trouble to himself, receives his land carefully cleaned and weeded, ready for employment."

This system doubtless has its advantages, and it is not among the least of them, that it enables the poorer classes of the rural population to struggle through existence without the kind and degree of help which is afforded by the Poor Law system of England. These advantages are, however, accompanied by the very serious drawback, that they tend to make and to keep the people poor. In this country, during the last half century, we have seen a totally different plan pursued; the number of smaller proprietors is everywhere greatly lessened, and in some districts they have entirely disappeared; the yeoman, if he has not by prudence and industry been enabled to advance his position in society, has sunk into the labourer, and the labourer has too frequently degenerated into the pauper; still it cannot be doubted that, by thus throwing together several small holdings, and administering them as one property, the productiveness of the land has been increased, and the expense of its cultivation lessened.

Independently of the constant tendency of the law in France to subdivide the land into minute portions, there appears to be another powerful cause working to the same end in the disposition and desires of the people. This fact is rendered strikingly apparent by the following replies given by Mr. Scott, the British Consul at Bordeaux, to the queries circulated at the instance of the Poor Law Commissioners:—

"What, in the whole, might an average labourer, obtaining an average amount of employment, both in day-work and in piece-work, expect to earn in a year, including harvest-work, and the value of all his advantages and means of living?—A common labourer alone earns yearly, all advantages included, 540 francs (21*l.* 12*s.*). Owing to the scarcity of labourers, no distinction as to wages is made between an able-bodied and a common labourer.

"What, in the whole, might a labourer's wife and four children, aged 14, 11, 8, and 5 years respectively (the eldest a boy), expect to earn in a year, obtaining, as in the former case, an average amount of employment?—A labourer's wife and four children can earn by labour about 300 francs (12*l.*) per annum, viz.—

	Francs.	£.	s.	d.
The wife	120	4	16	0
Eldest boy.	80	3	4	0
Child 11 years old . . .	50	2	0	0
Child 8 " . . .	30	1	4	0
Child 5 " . . .	20	0	16	0
	300	12	0	0

"Could such a family subsist on the aggregate earnings of the father, mother, and children; and if so, on what food?—Certainly. The food varies in different districts. Throughout the district called *Landes*

(heath), occupying about one-third of this department, the food consists of rye-bread, soup made of millet, cakes made of Indian corn, now and then some salt provisions and vegetables, rarely, if ever, butcher's meat; their drink, water, which for the most part is stagnant. In the other parts of the department the peasantry live better. They eat wheaten bread, soup made with vegetables and a little grease or lard, twice a day, potatoes and other vegetables, but seldom butcher's meat; their drink is wine or piquette.

"Could it lay by anything, and how much?—It is certain, that a family composed as above, could lay something by from their gains at the end of the year, as the wants of the lower classes are much fewer than in England; in fact, the luxuries of tea, &c., are quite unknown. For the causes above alluded to (extreme carelessness and absence of frugality), few of the peasants have any surplus at the end of the year; on the contrary, they are mostly in debt. The few exceptions may, with proper care, have 6*l.* to 8*l.* in advance: this is generally employed in the purchase of a bit of land."

Those among the labouring population of England who have been able through industry and frugality to save something out of their earnings, have a readier, and, as regards the community, a far better opportunity for the profitable employment of their money than is offered by the "purchase of a bit of land." The Savings Banks, which are always open to take the smallest sums, whenever they can be spared, and to make a moderate, but certain return of interest on the deposits, offer a much greater incentive to prudence than would generally be found in the desire of acquiring a rood of ground; besides which, the laws which regulate the transfer and possession of real property in this kingdom are so complex in their operation, and surrounded by so many difficulties, that it would be quite incompatible with prudence for any poor man to venture upon so uncertain a speculation as the validity of a title, if even the expensiveness of the deeds rendered such a course possible to him. The Savings Bank, on the contrary, can never involve those who there deposit their savings in any expense; the safety of the money is for the most part guaranteed by its investment in public securities: so long as the money continues in deposit it produces revenue to the owner, unaccompanied by any contingencies of seasons; and at any moment, when the amount, or any part of it, is required to meet any extraordinary exigency, it is forthcoming without being subject to any charge for management, or to deduction of any kind whatever. The degree in which the labouring classes in this country are willing to avail themselves of this institution is shown by the fact that on the 20th November, 1844, out of 1,012,475 depositors in Great Britain and Ireland, the large proportion of 564,642 had made deposits under 20*l.* The greater part must indeed have been depositors of very small sums, since the amount, if equally divided

among the number just mentioned, would average no more than 6*l.* 9*s.* 8*d.* for each. The regulations under which Savings Banks are placed limit to 200*l.* the amount that can be deposited by any one individual; and, in fact, 93 out of every 100 depositors are entitled to balances under 100*l.*, the aggregate sum of their savings forming more than two-thirds of the deposits invested. The great number of these small depositors, and their rapid increase, forms one of the best features in the apparent state and prospects of the labouring classes in this country. The progress of deposits in Savings Banks, both generally and in respect of this class of depositors, during the last eighteen years, will be found in the sixth section (Chapter II.) of this volume.

The following statement of the regulations adopted in Holland, relative to the support of the poor, is derived from an official paper drawn up towards the close of the year 1833, by order of the Minister of the Interior at the Hague, and communicated to the British Minister at that court.

At the time of the incorporation of the Netherlands with the French empire, the laws of France, including those relating to charitable institutions and hospitals, were declared to be in force in the Dutch departments, but were only partially adopted; and on the separation of the Netherlands from France in 1814, a royal decree was made, replacing the French laws by others more in accordance with the ancient institutions of the country. The following sketch exhibits the principal features of this system, as it existed at the above-mentioned date.

The principle invariably acted upon is that of making the charge of the poor rest, in the first place, upon the different religious sects to which they belong in each parish. When the means possessed by the different congregations are insufficient for this purpose, the poor may apply for assistance to the local civil authorities, by whom relief is generally afforded, if, after due investigation, the parties applying are found deserving objects. In several cities and parishes, a separate administration, responsible to the municipal authorities, is established for that portion of the poor who are not members of any religious sect; in other towns and parishes relief is afforded either by the burgomaster or by an overseer of the poor nominated by that functionary.

The hospitals and orphan-houses are, for the greater part, government establishments. Some few are maintained either wholly, or in part, by their own revenues. All are admitted inmates of these establishments, without distinction as to religion. Foundlings and abandoned children are maintained at the expense of the place wherein they are abandoned. There are three local workhouses: one at Amsterdam, one at Middleburgh, and one in the commonalty Nieuwe Pekel A, in the province of Groningen, in which paupers are received on their

application, and upon condition of their contributing as much as possible by their labour to their own support. There are further, in various places, twenty-one charitable houses of industry, where work is procured for paupers who are in immediate want. Besides these institutions, there are various other places supported by societies for affording relief in certain specified cases, some for granting assistance to lying-in women, some for distributing provisions and fuel in winter, and some for the relief of the very indigent.

The local authorities, in all cases, exercise control over the receipts and disbursements of charitable unions and establishments, the officers of which are bound to give in an annual statement to the government, in order to its presenting a report on the subject of the poor to the States-General.

The annual average receipts of the established charity-houses and hospitals, in the twelve years from 1820 to 1831, were 6,014,818 guilders, or 501,234*l.* 16*s.* The average number of persons who had received relief, in each of those twelve years, was 241,513. Pauperism appears to be on the increase in Holland. The average number of persons relieved in the six years from 1820 to 1825 was 218,159; in the following six years it was 264,868, being an addition of more than 20 per cent.; in 1831, the last year of the series, the number was 279,730, being an increase of nearly 30 per cent. upon the average of the earlier years, and of nearly 40 per cent. upon the numbers of particular years during that period. The proportion borne by the people relieved to the remaining part of the population, was 9·22 per cent. in 1822, or rather more than 1 in 11; the proportion in 1831 amounted to 11·40 per cent., or rather more than 1 in 9, which exceeds the present proportion in England.

The "Poor Colonies" of Holland, which a few years ago excited great interest in every part of Europe, owed their rise to a benevolent society founded in 1818, in consequence of the dearth of the two preceding years. The members of this society bound themselves to contribute each a weekly sum, amounting to not more than a halfpenny of our money; but as the number of subscribers very soon amounted to 20,000, the aggregate sum collected was considerable. The persons to whom the management of the fund thus raised was intrusted, early conceived the project of founding colonies among the heaths which abound in that country, and which should serve as asylums to different descriptions of paupers. These colonies were to be established with various objects. Some were to serve for the repression of mendicity; some as asylums for the poor and the aged; others were to be called free colonies; colonies of orphans and foundlings; and colonies for the [redacted] industry.

[redacted] the society established the free colony

of Frederik's-Oord, on the heath near to the provinces of Drent, Friesland, and Overyssel. This colony was composed of 52 small farms, the cultivation of which was commenced by the society, and it was peopled by persons from among the poorer classes, who were not in the receipt of alms. In 1819 the society proposed to the directors of the orphan asylums throughout the kingdom to receive for a certain annual payment any number of orphan children six years of age. To meet the new expense thus occasioned, the society borrowed 280,000 florins. The number of members of the society now amounted to 22,500, and their subscriptions to 82,500 florins, which enabled the directors to establish two other free colonies, in which they placed 500 families. In 1820 a fresh loan of 100,000 florins, joined to 78,000 florins of subscriptions, offered the means of establishing an equal number of families. In 1821 the subscriptions amounted to 121,000 florins, and a further loan was raised, amounting to 300,000 florins, the whole of which money was employed in the formation of free colonies. In 1822 the first colony for the repression of mendicity was established by the society, which further undertook, in conjunction with the government, to locate in other colonies 4000 orphans, 2500 indigent persons, and 1500 beggars. The government was to pay 45 florins per annum for the maintenance of each orphan during 16 years, and not anything for the other settlers, which reduced the payments to 22·50 florins for each individual of the entire number. The society has not, however, been able fully to perform its engagement.

The following Statement of the Progress of these Pauper Colonies, as regards the Number of their Inhabitants, is taken from an Official Report, drawn up by order of the Dutch Government, and includes a period of 12 *years, from* 1820 *to* 1831, *inclusive.*

Years.	Individual Members of Poor Families. (Free Colonies.)	Orphans, Foundlings, or abandoned Children.	Beggars.	Individual Members of Veterans' Families.	TOTAL.
1820	1,249	226	..	..	1,475
1821	1,737	365	..	..	2,102
1822	1,979	456	300	..	2,735
1823	2,295	475	1,053	..	3,823
1824	2,614	1,214	1,061	..	4,889
1825	3,227	2,174	1,377	..	6,778
1826	2,724	2,233	1,581	231	6,769
1827	2,560	2,059	1,763	401	6,783
1828	2,510	2,358	1,826	562	7,256
1829	2,626	2,340	1,942	543	7,451
1830	2,619	2,288	2,111	473	7,491
1831	2,694	2,297	2,406	456	7,853

In a country where pauperism is so widely spread as in Holland, the provision thus made for between 7000 and 8000 souls, of whom three-tenths are children, cannot have had any very sensible effect in checking the evil. According to Count Arrivabene, the kingdom of the United

Netherlands, which in 1827 included a population of 6,166,854, contained, at that time, 11,440 charitable institutions, which contributed to the support of 1,214,055 individuals, being only a very small fraction less than one-fifth of the entire population. The sum expended for the relief of the poor in the same year amounted to 12,821,395 florins (1,068,450*l.*). The population of Holland in 1827 was 2,307,661, and assuming that the circumstances of the people were the same in the Dutch as in the Belgian provinces, the number who received relief from charitable funds would be 454,304, or 67 times the number then residing in the pauper colonies. The number of 1,214,055, above stated, includes the pauper children who were receiving instruction, and some other recipients of the bounty of their fellow-citizens, whom in this country we should not exactly class as paupers; but when allowance is made for these, the amount of pauperism will still remain of frightful magnitude.

The "pauper colonies" are described by Mr. Senior as "large agricultural workhouses, and superior to the previous workhouses, only so far as they may be less expensive, or, without being oppressive, objects of greater aversion."

"It is scarcely possible," he continues, "that they can be less expensive. The employing persons taken indiscriminately from other occupations and trades, almost all of them the victims of idleness and misconduct, and little urged by the stimulus of individual interest, in farming the worst land in the country—land so worthless that the fee-simple of it is worth only 24*s.* an acre—at an expense for outfit, exclusive of the value of the land, of more than 130*l.* per family, and under the management of a joint-stock company of more than 20,000 members, cannot but be a ruinous speculation. Nor does the institution appear to have repressed pauperism by the disagreeableness of the terms on which it offers relief; we have seen, on the contrary, that it has not prevented its steady increase."

The details respecting the "pauper colonies" of Holland have been here given at greater length than would otherwise have been thought necessary, from the sanguine expectations formed by many persons in England of their success, and of the advantage that might follow the adoption of a similar system in this country.

With the exception of the canton of Berne, some particulars relating to which have been given, Holland appears to have been, after our own country, in the worst position of any nation in Europe in regard to the state of pauperism. To what is this attributable? The country is densely peopled, not so densely as England or Ireland indeed, but, with the exception of these countries, of some of the Italian states, of Belgium, and of the Rhenish provinces of Prussia, more thickly than any other European country. It is not to this circumstance, however, that we are

to look for the solution of the question, but rather to the existence of so many thousand endowed institutions for the relief of the poor.

The receipts of the administration for the established charity-houses and hospitals in the different provinces of Holland, taken on an average for each year, during the twelve years from 1820 to 1831, amounted to more than six millions of guilders, or rather more than half a million sterling, viz.—

			Guilders.	
Revenues of properties and acknowledged rights			2,461,883	26
Proceeds of collections			1,320,551	48
Subsidies granted by parishes	1,779,719	67		
„ the provinces	38,642	78		
			1,818,362	45
Revenues possessed by particular institutions			414,021	13
Total			6,014,818	32

The average population of the provinces during the same period is stated to have amounted to 2,292,350, so that the average annual expense per head has been equal to 4*s.* 4¼*d.*, an expenditure apparently small when compared with that of England and Wales, which, in the year ending March 25, 1834, was equal in money to exactly double the rate just mentioned. In forming this estimate it should be borne in mind, however, that from the habits of the people and the comparative cheapness of provisions in Holland, as compared with England, the expenditure of the smaller sum in the first named of these countries is more nearly equivalent to the larger payments in this country than would at first appear. The amount of the annual earnings of a labouring family in Holland is stated to be from 12*l.* 10*s.* to 18*l.* 15*s.*, while the average income of a labouring family of equal size in England is stated, on the authority of many hundred returns sent from various quarters, to amount to 41*l.* 17*s.* 8*d.*, being considerably more than double the sum upon which the family of the Dutchman is obliged to subsist.

The system pursued in Belgium in regard to the poor is in most respects similar to that pursued in France, whence the laws under which it is administered were for the greater part derived at the period when Belgium formed an integral part of the French empire. The laws having reference to this subject, which were made during the continuance of the kingdom of the United Netherlands, and which are still in force in Belgium, are few in number, and so are the enactments which have as yet been passed since the separation from Holland in 1830.

Under the government of the Directory, three laws having reference to the relief of the poor were passed in 1796, by which the property belonging to almshouses, which had previously been confiscated, was restored to these establishments. The management of the almshouses was intrusted to commissioners appointed by the municipal authorities.

The revenues of all those situated in the same commune were united into one fund for the common support of the whole, and in every commune there were appointed one or more *bureaux de bienfaisance*, for administering relief to the poor in their own houses. The administration of each of these bureaux was intrusted to five persons, and the funds placed at their disposal consisted of a tax of ten per cent. upon all public exhibitions made within the commune, together with whatever voluntary contributions they could obtain.

No change of any importance appears to have been made by the late or present government of Belgium with respect to the management of almshouses or bureaux de bienfaisance. The regulations decreed by the French Convention for the repression of mendicity and vagrancy have received some modifications in regard to the law of settlement, but it is not necessary to state the particulars here. Those regulations provided that every person found begging should be sent to his place of domicile; if he could not prove any domicile, he was to be imprisoned for a year; and if at the end of his imprisonment his domicile were still unascertained, he was to be transported to the colonies for not less than eight years. A person, who after being removed to his domicile should again be found begging, was to be imprisoned for a year, and on a repetition of the offence the punishment was to be doubled. During imprisonment he was to be set to work, and receive monthly one-sixth of the produce of his labour, and at the end of his imprisonment another sixth: the remaining two-thirds was to belong to the establishment in which he was confined. For the third offence beggars were to be transported. A person transported was to work in the colonies for the benefit of the nation, at one-sixth the average rate of wages of the colony. No person was to be transported under 18 or above 60 years of age. Those under 18 were to be detained until they arrived at that age, when they were to be transported; and those above 60 were to be imprisoned for life. By another provision every person convicted of having given any species of relief whatever to a beggar was, for the first offence, to forfeit the value of two days' labour, and on the repetition of the offence, this forfeit was to be doubled.

As might have been expected, the provisions of this decree were found too severe for execution; and after having remained inoperative during 15 years, the law was replaced by the imperial decree of the 5th of July, 1808.

By that decree each department was directed to establish a *dépôt de mendicité*, to which all persons found begging were to be arrested and taken. If common vagrants, they were to be taken to prison. While in the depôt, they were to be kept under severe discipline, and made to work at wages to be regulated by the prefect of the department, two-thirds of their earnings belonging to the establishment, and the

remaining third to be paid to them on quitting the depôt. The expense of these depôts, which was at first shared between the department and the general government, has since been thrown entirely upon the department, which, on the other hand, receives the cost of supporting mendicants from the different communes in which they have their settlement (*domicile de secours*).

There are now in Belgium six dépôts de mendicité, one in each of the provinces of Antwerp, Brabant, Flanders, and Hainault; one for Namur and Luxembourg, and one for Liege and Limbourg. Almshouses for the old and indigent, and hospitals for the sick, are very numerous, and each commune possesses its bureau de bienfaisance for the distribution of out-door-relief. The annual income of these bureaux amounted, in 1832, to 212,325*l.*, and of the almshouses to 165,835*l.*, making altogether 378,160*l.* We have not any data whence to calculate the whole sum expended for relief of the poor in Belgium, nor the number who receive relief, nor are there any means of determining with accuracy the general progress or diminution of pauperism in Belgium.

The *Société de Bienfaisance Belge* was established in 1823, on the model of the society which existed in Holland, for the establishment of agricultural colonies, and contracted with the government to receive 1000 paupers at the annual sum of 35 florins (2*l.* 18*s.* 4*d.*) for each. In consequence of this arrangement beggars were sent by the local authorities either to these colonies or to the dépôts de mendicité, and of late, if their begging was unaccompanied with aggravating circumstances, the previous imprisonment adjudged by the penal code has not been inflicted.

At first the families sent to the colonies founded by the Société de Bienfaisance were placed each in a separate farm, on which were a house, barn, and stable, two cows, sometimes sheep, furniture, clothes, and other stock, of the estimated value, including the land (about 7½ statute acres), of 133*l.* 6*s.* 8*d.* sterling, which was charged against them as a debt due to the society. The occupants were bound to work at fixed wages, to wear a uniform, to conform to certain rules, and not to quit the precincts of the colony without leave. A part of their wages was retained to pay the advance made by the society, a further portion to pay for necessaries furnished from time to time by the society, and the remainder was paid to them in base coin, current only within the colony, and which could be expended only in shops established by the society within its limits. It was soon found that this plan could not be persisted in. The land was badly cultivated, and the cattle were lost for want of proper food and attention. The society, therefore, in 1828, took back the surviving cattle, and throwing all the farms into one, employed all the colonists indiscriminately in its cultivation. "From this time," says Mons. Ducpétiaux, in a report drawn up by him in 1832, "bound thus

by obligations towards the society, which deprive him almost entirely of present liberty, without any hope of freedom in any time to come, the lot of the inhabitant of these so-called free colonies is very similar to that of the serfs in the middle ages, and of Russian peasants now; it is rather less fortunate than that of the peasants of Ireland, who if, like him, they often have nothing to assuage the pangs of hunger but potatoes and coarse bread, have, at least, the power of disposing freely of their actions, and removing from place to place at their pleasure."

These Belgian colonies, therefore, from the establishment of which so much good to the community was predicted, may be pronounced a decided failure. They have merged into establishments for compulsory labour; the society by which they were established has taken up the profession of farming, and the colonists differ only from ordinary labourers, in working under the penalty of being treated as vagabonds in case of the unsatisfactory performance of their tasks.

That this method of farming has been unproductive to those engaged in it, has been demonstrated by Mons. Ducpétiaux, the inspector-general of the prisons and benevolent institutions of Belgium, in the following statement, showing the number of labourers employed in each year from the establishment of the colonies to the year 1831, the expenditure of the society, and its annual receipts.

Years.	Free Colonists.	Beggars.	Expenditure. Florins.	Receipts. Florins.
1822	127	..	38,899 50	..
1823	406	..	93,532 70	..
1824	537	..	106,102 72	12,339 31
1825	579	490	102,983 73	25,740 74
1826	563	846	163,933 45	56,476 88
1827	532	899	168,754 61	50,677 38
1828	550	774	144,645 28	54,994 62
1829	565	703	174,611 44	98,523 57
1830	546	598	127,358 72	67,718 72
1831	517	465	135,405 81	82,578 81

The sums included under the head of Expenditure do not include many of the expenses of the administration. They consist simply of the sums remitted to the director for defraying current expenses. On the other hand, the sums set down as receipts, instead of being merely the amount of the net profit, are, in fact, the value of the gross produce. On the 1st of July, 1834, the debts due by the society amounted to 776,021 florins (64,661*l.*), while the whole value of its property was only 536,250 florins (44,698*l.*), leaving a deficiency of 239,771 florins, or nearly 20,000*l.* sterling.

It would be well if, against this pecuniary loss, there could be reckoned any moral advantage to the country by which it has been sustained; but it is to be feared that not any benefit of this kind has resulted from the effort. Captain Brandreth, who visited the colonies, and whose report concerning them is inserted in the Appendix to the Report of the Poor Law

Commissioners, gives us reason to believe that in this respect also these colonies have failed in producing any good result. He says,—"Among the colonists there were a few whose previous habits and natural dispositions disposed them to avail themselves, to the best of their ability, of the benevolent provisions thus offered for their relief, and who had worked industriously, and conducted themselves well, during their residence in the colony. Their land was cultivated to the extent of their means, and their dwelling-houses had assumed an appearance of greater comfort, order, and civilization than the rest. But these were too few in number, and the result too trifling to offer the stimulus of emulation to others.

"Those farms that I examined, with the above exceptions, were not encouraging examples; there were few evidences of thrift and providence, the interior of the dwellings being, in point of comfort, little, if at all, removed from the humblest cottage of the most straitened condition of labourers in this country.

"A clause in the regulations allows certain of the colonists, whose good conduct and industry have obtained them the privilege, to barter with the neighbouring towns for any article they may want.

"The nearest towns to the establishment of any note are Hoogstraten and Tournhout: but on inquiry I could not find that any intercourse was maintained with them, and the country round offered no evidences of the existence of a thriving community in the centre, exercising an influence on its traffic or occupations. In the winter, I should think the roads to the colonies scarcely practicable for any description of carriages.

"From what I saw of the social condition of the colonists, I am disposed to insist much upon the inexpediency of assembling, in an isolated position especially, a large community of paupers for this experiment.

"Admitting the physical difficulties to have been much less than they are, and the prospect of pecuniary advantage much greater and more certain, the moral objections to the system would outweigh them. Without the example of the better conditions of society, there can be no hope of such a community gradually acquiring those qualities that would fit the members of it for a better condition also. One or two families, established in the neighbourhood of an orderly and industrious community, would find the stimulus of shame, as well as emulation, acting on their moral qualities and exertions; but, as in the present case, where all are in a condition of moral debasement, both of those powerful stimuli are wanting."

A skilled artisan in Belgium may earn in summer from 1*s.* 2*d.* to 1*s.* 5*d.* per day, and in winter from 10*d.* to 1*s.* 2*d.* If unskilled, artisans will earn little more than half these rates. With these wages, joined to what may be earned by the wife and children, a family may subsist on rye-bread, potatoes, and milk. It is but rarely that they can procure meat. In towns where manufactures are carried on, the situation

of artisans is better than that just described. Agricultural labourers are generally boarded by the farmer with whom they work.

The hasty sketch which has here been given of the system of poor-laws and their results in other countries of Europe has been derived from section F of the Appendix to the Report of the Commissioners for inquiring into the administration and practical operation of the Poor Laws, and from the interesting Preface to that section by Mr. Senior. It does not appear to be within the purpose of this work to enter more fully into a description of the condition of the poor in other countries. The reader who is desirous of acquiring more detailed information upon the subject is referred to the work just mentioned, from which the following table is borrowed, with the view of showing the comparative state of comfort in which the poor in our own country, and those in other European communities, are able to live. Among the questions sent to the various parishes in England, it was asked,—"What in the whole might an average labourer, obtaining an average amount of employment, both in day-work and piece-work, expect to earn in the year, including harvest-work, and the value of all his other advantages and means of living, except parish relief? and what in the whole might a labourer's wife and four children, aged 14, 11, 8, and 5 respectively (the eldest a boy), expect to earn in the year, obtaining, as in the former case, an average amount of employment?"

	£.	s.	d.
The answers to these queries from 856 parishes give, for the annual earnings of the man, an average of	27	17	10
And the answers from 668 parishes, give, as the annual earnings of the wife and children, an average of	13	19	10
Annual average income of the family	£41	17	8

To the further question—"Could such a family subsist on the aggregate earnings of the father, mother, and children, and if so on what food?—Answers were returned from 899 parishes to the effect exhibited in the following table:—

COUNTIES.	Number of Parishes answering.	No. (Simply.)	Yes. (Simply.)	Barely, or without Meat.	With Meat.
Bedford	15	1	3	..	11
Berks	24	2	1	2	19
Bucks	27	2	5	5	15
Cambridge . . .	33	2	11	3	17
Chester	12	..	5	2	5
Cornwall . . .	24	..	1	2	21
Cumberland . .	33	..	7	13	13
Derby	7	..	2	..	5
Devon	18	1	7	1	9
Dorset	16	1	4	2	9
Durham	30	..	6	4	20
Essex	38	9	9	6	14
Gloucester . . .	19	..	7	5	7
Hereford . . .	16	2	1	5	8
Hertford . . .	16	..	2	6	8
Huntingdon . .	9	2	..	1	6

COUNTIES.	Number of Parishes answering.	No. (Simply.)	Yes. (Simply.)	Barely, or without Meat.	With Meat.
Kent.	43	5	12	2	24
Lancaster . . .	14	..	8	1	5
Leicester . . .	14	..	6	3	5
Lincoln	14	1	5	..	8
Middlesex . . .	2	..	..	..	2
Monmouth . . .	7	..	2	1	4
Norfolk	27	2	8	..	17
Northampton . .	14	..	2	1	11
Northumberland .	18	..	2	..	16
Nottingham . .	19	..	7	1	11
Oxford	21	..	8	3	10
Rutland	4	..	3	..	1
Salop.	19	..	1	..	18
Somerset . . .	22	2	..	6	14
Southampton . .	43	3	7	6	27
Stafford	12	1	1	..	10
Suffolk	26	4	9	3	10
Surrey	20	..	5	2	13
Sussex	68	21	18	7	22
Warwick . . .	31	1	4	4	22
Westmoreland . .	17	3	4	5	5
Wilts.	24	1	7	4	12
Worcester . . .	18	1	6	2	9
York.	65	4	16	17	28
	899	71	212	125	491

CHAPTER V.

EMIGRATION.

Circumstances under which Emigration may be desirable—Habit of non-interference on the part of Government—Private associations for promoting Emigration—Settlement in South Africa—Number of Emigrants from this Kingdom, 1820–1849—Arrivals of Emigrants at Quebec and New York, 1829–1843—Distribution of Emigrants—Transportation of Criminals to New South Wales—Suggestion for their employment in British America—Number of Convicts transported, 1825–1841—Convict establishment in the Bermudas.

IN every country which is making any considerable progress in the arts of life, changes will from time to time occur in the sources of employment for particular classes of the people, which must be felt as a hardship by individuals, although to the country at large they are productive of great and permanent good. The introduction of the power-loom, which has so vastly increased the productive force of the kingdom, has worked, and still is working injuriously to a numerous body of hand-loom weavers who cannot always find employment in other branches of industry without suffering great inconveniences and privations, and who are liable to be thrown wholly out of employment, or, at best, may be obliged to submit to a scale of wages inadequate to their wants.

It can scarcely be doubted, that in this and similar cases, a well-digested plan of emigration, under the sanction or direction of the government, might be rendered efficacious to palliate the evil. It is true, that the mischievous effect of any such changes may be but transient; that the increase made to the national wealth, and the additional calls for labourers in other branches, which are caused by the very circumstance that has brought about the misery of the few, would speedily absorb all, and more than all the hands which have been at first rendered idle. But the misery is not on that account less real while it lasts. Experience has shown that uneducated men pass with difficulty and unwillingly from occupations to which they have been long accustomed, and that the compulsory state of idleness to which they are for a time reduced by the failure of their wonted employment, too frequently becomes habitual. When this lamentable effect has been produced, the unfortunate victims become, almost irrevocably, permanent burthens upon the community; and their wretchedness is made a theme for declaimers, who would fain persuade mankind that the sacrifices necessary for the onward progress of society are too great for the advantage, if indeed they are willing to admit that what is attained deserves in reality to be called an advantage.

If at the moment when the usual source of employment became stinted, and while yet the labourers possessed the energies of their minds unimpaired, some well-arranged plan of emigration were offered to them under the sanction of government, so as to give a reasonable assurance of future maintenance, it is probable that a large portion of them would gladly embrace the offer, and the advantage to the proportion who might remain would be scarcely less certain, through the lessening of the number of competitors for employment. It may be doubted, however, whether the degree of watchful care here supposed on the part of government, if it were directed to another channel, might not be so employed as to secure a greater good to the community at large, not only at a smaller cost to the country, but also at a less present sacrifice on the part of the destitute labourers. If a Board of intelligent men were appointed in the metropolis, to whom representations of distress arising from want of employment might be made by parochial authorities, while demands for labouring hands were made to them by manufacturers or others in different parts of the country, who might be in the opposite condition, a much smaller outlay would suffice to restore the equilibrium of labour than would be called for to convey the unemployed to distant colonies, while the persons so transferred would be subjected to fewer cares and hardships, and would be called upon to make fewer sacrifices of feeling than must always attend the renunciation of one's native land, endeared as it is even to the poorest and humblest by the ties of consanguinity and friendship, and by those early habits and associations to which men cling with the pertinacity of instinct.* Times and occasions might, and sometimes would arise, when the redundancy of labourers in one district could not be met by openings in other quarters, and then it might be true economy on the part of the nation to provide the means required for emigration, being careful so to direct its course as to add to the prospective strength and welfare of the empire.

It has been too much the practice of successive governments in this country to deal with this question upon the principle of non-interference, and to leave the various disarrangements of society to right themselves. This undoubtedly they may at length do in every country, and the sooner in proportion to the general diffusion of intelligence among the people; but it is a true, although trite remark, that all governments are instituted for the benefit of the people; and it would be difficult to show that it is not as much the duty of rulers to provide, as far as they can, for the removal of a domestic calamity, as it is to guard the people intrusted to their care from foreign outrage.

* The plan here proposed was for some time acted upon with the best result by the Poor Law Commissioners, through whose instrumentality some of the superabundant agricultural labourers of Buckinghamshire and Bedfordshire were removed to Lancashire, where they were immediately furnished with employment.

England has not much to boast of in regard to its experiments in colonization. With the exception of the settlements in Australia, and that of Sierra Leone, our colonies have all been the fruits of conquest. A few ill-considered efforts made during the last fifteen years are all that the government has done for the advancement of distant colonies, and one or two trifling grants, obtained from parliament at seasons of extraordinary pressure, constitute the only *direct* pecuniary assistance that has been rendered for the same purpose. Recently we have witnessed schemes for encouraging emigration set on foot by private associations for their own profit, the interference of government having been for the most part limited to the sale, to the associations, of districts which might otherwise have continued valueless deserts for ages.

In the early part of the present century, although the cry of distress was occasionally loud and urgent on the part of the labouring classes, that distress was occasioned more by the dearness of provisions than by any deficiency of employment, as a remedy for which, if it had occurred, the ranks of the army were at all times open. The return of peace threw back in considerable numbers upon the community the surplus labourers who had been thus absorbed, two deficient harvests occurred consecutively in aggravation of this inconvenience, and in the year 1820,

Years.	To United States of America.	To British North American Colonies.	To Australian Settlements and New Zealand.	To all other Places.	Total Number of Emigrants.
1820	17,921		..	1,063	18,984
1821	12,470		320	404	13,194
1822	11,282		875	192	12,349
1823	8,133		543	184	8,860
1824	7,311		780	119	8,210
1825	8,741		485	114	9,340
1826	12,818		903	116	13,837
1827	12,648		715	114	13,477
1828	12,084		1,056	135	13,275
1829	13,607		2,016	197	15,820
1830	30,574		1,242	204	32,020
1831	49,383		423	58	49,864
1832	32,980	66,339	3,792	202	103,313
1833	29,225	28,808	4,134	517	62,684
1834	33,074	40,060	2,800	288	76,222
1835	26,720	15,573	1,860	325	44,478
1836	37,774	34,226	3,124	293	75,417
1837	36,770	29,884	5,054	326	72,034
1838	14,332	4,577	14,021	292	33,222
1839	33,536	12,658	15,786	227	62,207
1840	40,642	32,293	15,850	1,958	90,743
1841	45,017	38,164	32,625	2,786	118,592
1842	63,852	54,123	8,534	1,835	128,344
1843	28,335	23,518	3,478	1,881	57,212
1844	43,660	22,924	2,229	1,873	70,686
1845	58,538	31,803	830	2,330	93,501
1846	82,239	43,439	2,347	1,826	129,851
1847	142,154	109,680	4,949	1,487	258,270
1848	188,233	31,065	23,904	4,887	248,089
1849	219,450	41,367	32,191	6,490	299,498

the evil had grown to so great a height that the government undertook the task of conveying settlers, and locating them in South Africa. The annexed table (p. 128) shows the number of persons who since that time have emigrated from the United Kingdom to the British American colonies, the United States of America, the Cape of Good Hope, and the British settlements in Australia respectively.

The foregoing statement is given on the authority of Custom-house returns, and is of course correct, as far as the knowledge of the officers of that department extends. From other documents, equally authentic, we find, however, that the Custom-house returns are exceedingly defective. The following statements transmitted by the chief agent for emigrants at Quebec, and by the British consul at New York, exhibit numbers greatly exceeding in some years those contained in the former table:—

Number of Emigrants who have arrived at Quebec in each of the 15 years, from 1829 to 1843.

	1829	1830	1831	1832	1833	1834	1835	1836
FROM								
England and Wales . .	3,565	6,799	10,343	17,481	5,198	6,799	3,067	12,188
Ireland	9,614	18,300	34,135	28,204	12,013	19,206	7,108	12,590
Scotland.	2,643	2,450	5,354	5,500	4,196	4,591	2,127	2,224
Hamburgh and Gibraltar	..	..	..	15	..	..	..	485
Nova Scotia, Newfoundland, West Indies, &c. .	123	451	424	546	345	337	225	235
	15,945	28,000	50,256	51,746	21,752	30,933	12,527	27,722

	1837	1838	1839	1840	1841	1842	1843
FROM							
England and Wales . .	5,580	990	1,586	4,567	5,970	12,191	6,499
Ireland	14,538	1,456	5,113	16,291	18,317	25,532	9,728
Scotland	1,509	547	485	1,144	3,559	6,095	5,006
New Brunswick and Nova Scotia, and Ports on the River St. Lawrence .	274	273	255	232	240	556	494
Grand Total, 387,908	21,901	3,266	7,439	22,234	28,086	44,374	21,727

Number of Emigrants who have arrived at New York in each of the 13 years, from 1829 to 1841.

	1829	1830	1831	1832
From England and Wales .	8,110	16,350	13,808	18,947
„ Ireland	2,443	3,497	6,721	6,050
„ Scotland	948	1,584	2,078	3,286
	11,501	21,431	22,607	28,283

From the United Kingdom.

1833	1834	1835	1836	1837	1838	1839	1840	1841	Grand Total.
16,100	26,540	16,749	59,075	34,600	13,059	24,376	41,500	32,409	348,230

England has not much ... nted with colonization. With the ... migration and that of Sierra Le... ally to conquest. A few ill-... ments after years are all that the ... distant colonies, and on... sons pro- at seasons of extraord... assistance that has b... have witnessed sch... private associati... ment having be... ciations, of di... deserts for ag...

In the earl... was occasion... that distr... any defici... the rank... threw b... labourer... conse...

	436
	30
	176
	18
	9
	13
	250
	161
Total	70,686

... which they took their departure

		4,070
19,112		
15,173		
	34,285	
5,925		
5,977		
	11,902	
		46,187
... to England		50,257

Scotland.			
Cabin passengers			663
Other emigrants, viz.:—			
Adults—Males	1,448		
Females	1,159		
		2,607	
Children under 14:—			
Males	661		
Females	573		
		1,234	
			3,841
Total for Scotland			4,504
Ireland.			
Cabin passengers			156
Other emigrants, viz.:—			
Adults—Males	5,759		
Females	5,823		
		11,582	
Children under 14:—			
Males	2,135		
Females	2,052		
		4,187	
			15,769
Total for Ireland			15,925
Total for the United Kingdom			70,686

Distribution of the emigrants who arrived at Quebec and Montreal in the season of 1837:—

Lower Canada.		
City and District of Quebec	400	
District of Three Rivers	300	
District of St. Francis and Eastern Townships	1,500	
City and District of Montreal	1,000	
Ottawa District	800	
		4,000
Upper Canada.		
Ottawa, Bathurst, Midland, and Eastern Districts as far as Kingston, included	3,000	
District of Newcastle and Township, in the vicinity of the Bay of Quinte	1,800	
Toronto (late York) and the Home District, excluding settlements round Lake Simco	2,000	
Hamilton, Guelph, and Huron Tract, and situations adjacent	2,500	
Niagara Frontier and District, including the line of the Welland Canal, and round the head of Lake Ontario to Hamilton	2,000	
Settlements bordering on Lake Erie, including the London District, Adelaide Settlement, and to Lake Saint Clair	5,000	
		16,300
Deaths at Marine Hospital	92	
Gone to United States	1,509	
		1,601
Total		21,901

It was estimated by the very active and intelligent agent of the British government in Canada, Mr. Buchanan, who possessed the best opportunities for forming a correct judgment on the subject, that the capital conveyed into the province of Canada in the year 1834 by settlers, amounted to at least 1,000,000*l.* of sterling money. Several agriculturists took with them superior breeds of horses and cattle; one in particular, who settled near Bytown, on the Ottawa River, had fifty head of cattle of the most approved English breeds.

The whole of the labouring portion of the emigrants are reported to have found immediate occupation, with prospects of a cheering nature, so that nothing but industry and sobriety on their own part would be wanting to render their future course as free from worldly cares and risks as can be hoped for in this life.

If we assume Mr. Buchanan's calculation for 1834 to be applicable to the whole number of persons who have emigrated during the 25 years embraced by the table already given, the amount of capital taken by them from the United Kingdom, must have been equal to 40 millions sterling.

A large proportion of the emigrants from this kingdom, who land at New York, do not remain in the United States, but take that route to Upper Canada, in order to avoid the river St. Lawrence, the navigation of which, and of the coast near its mouth, is tedious and dangerous in the late autumnal months. The returns of Mr. Buchanan show the number of vessels wrecked in the season of 1834 to have been 17, and the lives lost to have amounted to 731. One reason assigned for this large proportion of losses, and for the comparative safety which accompanies the voyage to New York, is the excessive use of ardent spirits, in which the seamen who navigate English vessels are accustomed to indulge, and to which the sobriety maintained in American shipping affords a striking, and, for our countrymen, a very humiliating contrast.

The expatriation of criminals is a species of emigration of a character altogether different from that which takes place through the voluntary movements of individuals. Besides the great end of all punishment, the deterring of offenders, almost the only object kept in view by the government in the establishing of penal settlements, has been that of removing out of the way of perpetrating further mischief against their fellow-citizens, a class of people whose energies, if applied in a right direction, might tend to the advancement of society. Having performed what is necessary for the end immediately proposed, the government has rested satisfied, as though it had done all that was demanded of it; and if, in the course of events, the settlements thus peopled by English convicts have come to be important colonies, the result has happened without any direct interference of the government, and at best with its permission only.

There can be no question that, by ridding the community at home of its pestilent members, a great benefit is conferred upon all the well-disposed members of society; but it by no means follows that *all* the good is thus attained which the operation might be made to yield. It is of great and manifest advantage to remove from cities the noxious matters which are continually accumulated within them; but we should think very little of the wisdom which simply carried away the mass to a situation beyond the point of immediate injury to the inhabitants, and which there left, in a profitless and inert condition, an agent susceptible, under other circumstances, of contributing to the support, the convenience, and the wealth of the people. And yet, what more has hitherto been done with regard to that small part of the criminals of these kingdoms which has, at an enormous expense, been sent to the other side of the globe? Although their absence has doubtless been a blessing to society in this country, and in some degree also a benefit to the colony which has received them, it might be easily shown that, by pursuing a different plan, the system of transporting convicts might have been made to yield advantages much greater than it has ever yet realized.

The circumstances which must first strike any person as extraordinary in regard to the expatriation of criminals from this country is the choice of the station to which they have been sent. That a country which, like England, is possessed of an almost boundless tract of unsettled fertile lands within four weeks' sail of her own shores, should in preference send her criminals to a territory which cannot be reached in less than as many months, thus swelling the expense of their conveyance, is a course which requires for its justification some better reasons than have ever yet been brought forward. The safe custody of convicts is not more surely attained by this increase of distance; and it may even be held, that a body of them, if conveyed some hundred miles into the interior of America, would find it as difficult to escape thence as they do now from Australia, where they are necessarily located near to the shore. It remains then to be considered, what advantage beyond that of safe custody attaches to New South Wales as a criminal settlement, which would not be realized in a far greater degree by transporting offenders to the interior of Canada.

According to present appearances, and the knowledge we have obtained concerning the nature of the country, it does not appear probable that Australia can ever become an agricultural country. The long-continued droughts to which it is subject, and the nature of the greater part of the soil, seem to preclude that result. It can never therefore be thickly inhabited; and although, from the vast extent of the territory, many more settlers than at present reside in the colony may be able to locate themselves, and to provide employment for their convict labourers, with some advantage to themselves as individuals, it

appears to be altogether improbable that the colony can ever assume anything approaching to the importance of our North American possessions, either in regard to productiveness or population.

In New Brunswick and Canada, for many years to come, works might be carried forward by means of convict-labour, which would speedily and amply repay every expense attending the conveyance of the convicts thither, and their support while there; while these works are of such a nature that none, save those persons to whom the charge and direction of the convicts would be intrusted, would necessarily be brought into contact with them.

If gangs of convict-labourers were placed a little beyond the verge of civilization, and employed in clearing and inclosing lands, constructing roads, and building bridges and dwellings, the lands thus prepared and improved would meet with ready purchasers at prices which would well repay to the government their previous outlay. The gangs might then be moved to other and more distant spots, and employed in similar works of utility, and in this way would relieve emigrants from many of the hardships and difficulties which they are now doomed to encounter at the commencement of their settlement.

The total number of convicts who arrived in New South Wales from this kingdom in each year, from 1825 to 1841 inclusive, was as follows:—

YEARS.	ENGLISH.		IRISH.		TOTAL.
	Males.	Females.	Males.	Females.	
1825	764	140	901	111	1,916
1826	679	..	1,036	100	1,815
1827	1,239	342	846	160	2,587
1828	1,589	179	752	192	2,712
1829	2,008	319	1,163	174	3,664
1830	2,096	128	685	316	3,225
1831	1,437	206	692	298	2,633
1832	1,810	248	928	133	3,119
1833	2,719	377	794	261	4,151
1834	1,923	284	781	173	3,161
1835	2,099	179	1,324	..	3,602
1836	2,195	274	960	394	3,823
1837	2,155	235	737	298	3,425
1838	1,673	172	1,067	161	3,073
1839	1,193	314	372	414	2,293
1840	1,201	212	912	249	2,574
1841	301	212	177	249	939
Total .	27,081	3,821	14,127	3,683	48,712

being an average of 2865 per annum. The total number of the same class living in Van Diemen's Land in 1840 was 19,439.

There is unhappily but too much reason for believing that nearly the whole number of labourers who could be profitably employed in the manner suggested might be furnished from the criminal population of

the United Kingdom, unless, indeed, the increasing apprehension of being condemned to years of (to them) profitless toil, should be found to act as a salutary check upon the commission of offences, an effect which, to some extent, would probably be experienced. In the meantime let us inquire as to the degree in which, supposing the present rate of offences not to be so checked, it might be possible to recruit the gangs of convict-labourers.

It is a fact as notorious as it is deplorable, that in all our populous cities and towns, but especially in the metropolis, there are considerable numbers of persons whose only occupation is that of committing depredations on the property of the rest of the community. These wretched characters, who are well known to the police under the name of reputed thieves, spend nearly one-half of their time in prison, and the remainder in the perpetration of offences; and it is difficult to say at which of these periods they are employed most noxiously. While in confinement they are supported at a greater expense, and with a larger share of worldly comforts than can be commanded by a great number of our honest and industrious poor, in return for which their employment is either that of perfecting themselves in their nefarious arts through the instructions of villains more accomplished than themselves, or that of teaching others less experienced in criminality. Our prison discipline has hitherto been so lax in this respect, that a youth who should be confined for only a short time in a gaol, is certain to have all his blunted feelings of virtue obliterated, while his vicious propensities are in a corresponding degree nurtured and strengthened. He has perhaps yielded to some strong temptation in a moment of weakness, and, but for the evil influence to which he is subsequently exposed in a prison, might have drawn back from the path of vice upon which he had thus merely entered; but let him once be so exposed, and he will become in all probability a lost character for the remainder of his life.

The mode in which the criminal returns of the kingdom have been hitherto made up, does not enable us to ascertain the number or proportion of criminals who follow lawless courses as a profession. From the ease with which the scene of their operations may be varied, and owing to the practice among them of giving in false names, it must often be difficult, and sometimes impossible, to ascertain that proportion with any near approach to accuracy. In the "Gaol Returns," annually made to Parliament, an attempt is made to supply this information; but as debtors and all kinds of offenders, as well those committed on the summary jurisdiction of magistrates, as the graver criminals brought before the courts of assize, are included in these returns, they do not enable us to draw any decided inferences. According to the statements there given, about one-fifth of the delinquents who annually pass through our gaols have previously been inmates of a prison. Out of

each 100 of these relapsed criminals, 56 have appeared once before at the bar of criminal justice; 20 have appeared twice before; 9 have appeared three times before; and 15 have previously appeared four times or more to answer for offences.

The fact that so many ill-disposed persons are continually let loose upon society to prey upon the honest, and to corrupt the weak and ignorant, is a circumstance which loudly calls for remedy on the part of government, which would surely be justified in removing the pestilence, and indeed would seem to be under an obligation of duty to do so. The degree in which this duty is incumbent upon the government was placed in a very strong light by the highest criminal judge in the kingdom, when he expressed a doubt whether any government is fully justified in awarding punishments for crimes, unless it has previously taken every moral precaution within its power for their prevention.

According to the Gaol Returns for 1834, the number of persons who became inmates of prisons in England and Wales during that year, amounted to within a very small fraction of 100,000, of whom 15,270 had on one or more previous occasions been subjected to punishment. Many of the offences for which this large number of persons were committed were of a comparatively trivial character. Vagrancy, assaults, want of sureties arising out of cases for breaches of the peace, trespasses, acts of petty pilfering, poaching, offences against the revenue laws, disorderly acts on the part of apprentices and workmen, and various other offences for which magistrates have the power of passing summary sentences of imprisonment for periods varying from a week to twelve months—these form the large majority of the causes of confinement; but even these offences—it would be harsh and unjust to call them crimes—are, through a culpable want of care on the part of those in authority, unintentionally, it is true, but unavoidably visited with the severest degree of punishment, in the destruction, by confinement in a prison, of all those moral and religious restraints which chiefly prevent men, whose natural good feelings have not been strengthened by education from becoming nuisances to society.

The Gaol Returns of 1844 show that in 10 years there has been an increase of more than 25 per cent. to the number of persons passing through the prisons of England and Wales; the numbers for that year having been 126,000, of whom 28,841 had on one or more previous occasions been committed to a prison, an increase of nearly 90 per cent. upon the number of *réçidives* in 1834. It is to be hoped that this progress is caused, in part at least, by more vigilant police arrangements. We have, at any rate, the satisfaction of knowing, from the reports of the chaplains and governors of some of the principal gaols, that a great improvement in their discipline has been brought about, and that con-

finement in a prison is not so certain now as it was formerly to consummate the ruin of those who enter it.

If the contagion of bad example and vicious instruction could be avoided, the restraint of a prison might perhaps prove, when applied to minor offences, as good a corrective as any other punishment capable of general application, and especially when a system of irksome labour is engrafted on it. The suggestion already made of sending away criminals to labour in situations where none would be within the noxious influence of their evil precepts or example would take away from imprisonment, when inflicted on less grave offenders, the reproach to which it is now liable, and which renders it the most unfit instrument that can possibly be employed for correction, both as regards the individuals upon whom it is inflicted and society at large.

Since the year 1824, a considerable establishment of convicts has been kept up in the Bermudas, employed in constructing a breakwater, and in perfecting some fortifications at Ireland Island. The number at present so maintained is about 1000. The works upon which they are employed will, it is expected, be shortly completed, when the convicts will be withdrawn, as it is not intended to make the Bermudas a penal settlement. The suggestion that has been offered in regard to the employment of convict labour on the continent of North America is thus not unsupported by precedent, although the nature of the labour upon which the Bermuda convicts have been engaged is somewhat different from that suggested as desirable in the back-woods of Canada or New Brunswick. If good has been found to result from this experiment on the part of the government, there can be no reason to doubt that an equal benefit would follow the plan now recommended, as a means both of saving a considerable expense and of producing a good moral effect upon the idle and dissolute among the lower classes in this country.

SECTION II.—PRODUCTION.

CHAPTER I.

AGRICULTURE.

Impossibility of importing any large proportion of Food for the Population—Importations of Wheat, 1801 to 1849—Comparative smallness of its amount—Numbers fed with Wheat of Home and of Foreign Growth—Increased Productive Power of Great Britain—Means whereby this increase has been effected—Deficiency of statistical information connected with Agriculture in England—Improvements in Scotland—Inclosure Bills and Average Prices of Wheat since 1760—Corn-Law of 1815—Conflicting testimony as to Agricultural Distress given to the Committee in 1833—Increased Rents since 1790—Adaptation of the Steam-Engine to the Draining of Fens—Effect upon Agriculturists of the restoration of a Metallic Currency—Land brought under Cultivation since 1760—Compared with Increase of Population since 1801—Surface of cultivated, uncultivated, and unprofitable Land in each division and County of the United Kingdom in 1827—Proportion of cultivated Land to the Population at different periods during the present century—Probability of Population outstripping the productive powers of the soil—Supposed influence upon this question of the extensive construction of Railroads—Estimate of the Number of Horses, the employment of which may by that means be rendered unnecessary.

IN every country the condition of its agriculture must be a subject of the very first importance. An inconsiderable state or colony may, it is true, without much danger or inconvenience, exist under circumstances which oblige it to be habitually dependent upon the soil of other countries for the food of its inhabitants; but a very little inquiry, and a very simple calculation, would suffice to convince us that this can never be the case with a numerous people. To supply the United Kingdom with the single article of wheat would call for the employment of more than twice the amount of shipping which now annually enters our ports, if indeed it would be possible to procure the grain from other countries in sufficient quantity; and to bring to our shores every article of agricultural produce in the abundance we now enjoy, would probably give constant occupation to the mercantile navy of the whole world.

These are assertions which every one can in a moment verify or disprove, by estimating the average consumption of each inhabitant of the kingdom, and multiplying its annual amount by the numbers of the population. If they are true, it must be equally true that every country which makes great and rapid progress in population must make equal progress in the production of food. A trifling addition to the number of the people might be met either by importations from abroad

or by a diminution of the proportion of food which they consume. But the first of these expedients is impossible when any great accession is made to the population; and it is a proposition, the truth of which will hardly be questioned, that where the people are deprived of any considerable proportion of their accustomed supply of food, it is highly improbable that their numbers should increase.

It has been shown in the previous section how greatly and how rapidly the population of the United Kingdom has increased since the beginning of the present century. During the forty years that intervened between the census of 1801 and that of 1841, that increase amounted to 10,700,000 souls, and at the present time (1850) may have reached 13,000,000, a number probably equal to the entire population of Great Britain in 1811.

This increase of inhabitants would be sufficient, as already remarked, to contradict the idea of any great inadequacy in the quantity of food, if the observation and experience of every one did not enable him otherwise to disprove such a position; and as it is equally impossible to believe that the increasing wants of the people, during the above-mentioned period of forty years, were in any material degree met by supplies from without, the conviction is irresistibly forced upon us that a most important increase in the amount of agricultural products must have taken place within the kingdom. It is not necessary for us, however, to rest satisfied upon this point with reasonings and calculations, however convincing, since we are enabled to ascertain with precision, from custom-house returns, the entire quantity of grain that has been imported into the kingdom for each one of a long series of years. It is equally unnecessary to load these pages with numbers and lengthened tables of figures, in order to make good the position that has been here advanced. The following short statement of the quantity of wheat and wheat flour that has been imported for consumption in each year of the present century will suffice to show how insignificant, when compared with the wants of the community, have been the supplies which we have drawn from foreign countries:—

Years.	Quarters.	Years.	Quarters.
1801	1,396,359	1811	238,366
1802	498,359	1812	244,385
1803	297,145	1813	425,559
1804	398,067	1814	681,333
1805	842,879	1815	..
1806	280,776	1816	225,263
1807	379,833	1817	1,020,949
*1808	..	1818	1,593,518
1809	424,709	1819	122,133
1810	1,491,341	1820	34,274
	6,009,468		4,585,780
Annual Average	600,946	Annual Average	458,578

* The exports of wheat in this year exceeded the quantity imported.

Years.	Quarters.	Years.	Quarters.	Years.	Quarters.
1821	2	1831	1,491,631	1841	2,619,702
1822	..	1832	325,435	1842	2,977,302
1823	12,137	1833	82,346	1843	982,287
1824	15,777	1834	64,653	1844	1,021,681
1825	525,231	1835	28,483	1845	313,245
1826	315,892	1836	24,826	1846	2,943,926
1827	572,733	1837	244,087	1847	4,612,111
1828	842,050	1838	1,834,452	1848	2,193,755
1829	1,364,220	1839	2,590,734	1849	5,634,344
1830	1,701,885	1840	2,389,732		23,298,353
	5,349,927		9,076,379	Annual Average	2,588,706
Annual Average	534,992	Annual Average	907,638		

It appears from this statement, that in the ten years from 1801 to 1810, the average annual import of wheat into the kingdom amounted to 600,946 quarters; and as the mean number of the population during that period was 17,442,911 souls, this quantity would afford a very small fraction above a peck for the annual consumption of each person. The average importation in the ten years between 1811 and 1820 was 458,578 quarters; and as the mean number of the population had in that period advanced to 19,870,589, that number of quarters would afford each person one gallon and a half towards the year's consumption. In the third period, between 1821 and 1830, the average annual importation advanced to 534,992 quarters; but the population had advanced in an equal proportion, so that the annual share of each person in the foreign supply remained the same (one gallon and a half) as last stated. The average amount of importation in the ten years from 1831 to 1840 rose to 907,638 quarters; and the mean number of consumers in this period having been 25,601,119, the importations, if fairly divided among them, would have given annually to each about 2¼ gallons.

In each of the three periods of ten years into which the foregoing statement has been divided, up to 1830, there were two years of large importation arising from deficient harvests, and in the last decennary period there occurred four years of this character. If those years were excluded from the calculation, the average importations would of course be materially lessened.

During the last nine years of the series, viz., from 1841 to 1849, the average quantity of foreign and colonial wheat and wheat flour taken for home use advanced to 2,588,706 quarters per annum, which quantity, divided equally among the increased number of consumers, would afford nearly 6 gallons per annum for each person.

It will be fresh in the memory of most persons that, in addition to several years of somewhat deficient grain harvests, we have, during the period included in these nine years, been visited by one of the severest calamities arising from the influence of seasons which it has been our misfortune ever to encounter. The famine caused in Ireland by the destruc-

tion of the potato crop in 1847 will long be remembered with feelings of horror by all who were by any circumstances brought to a personal knowledge of its effects, and will ever remain as a dark page in our history. During its continuance food of various kinds was sought in every market open to us; the laws regulating its importation were suspended, and our navigation law was placed in partial abeyance. It must be clear that under such circumstances it would be idle to attempt to draw any fair comparison between this and other periods.

The foregoing calculations show in how small a degree this country has hitherto been dependent upon foreigners, in ordinary seasons, for a due supply of our staple article of food. It is not, however, with this view that those calculations are brought forward, but rather to prove how exceedingly great the increase of agricultural production must have been to have thus effectively kept in a state of independence a population which has increased with so great a degree of rapidity. To show this fact, the one article of wheat has been selected, because it is that which is the most generally consumed in England; but the position advanced would be found to hold equally good were we to go through the whole list of the consumable products of the earth. The supply of meat, during the years comprised in the inquiry, has certainly kept pace with the growth of population; and, as regards this portion of human food, our home agriculturists, during the largest portion of the whole period, enjoyed a strict monopoly.

The consumption of wheat in this country has been variously estimated by different writers. Some have supposed the average quantity used by each inhabitant to be eight bushels in the year, while others have assumed only six bushels as the yearly consumption of each person. Using the foregoing figures, and applying them to each of these quantities, we may find in what degree the soil has been rendered increasingly productive for the sustenance of our growing numbers. In the closing years of the last century there occurred a succession of deficient harvests, which caused a considerable importation of corn into this country; but previous to that time the production of wheat had been about adequate, taking one year with another, for the feeding of the inhabitants. If we assume this state of things to have lasted up to 1801, it will be easy to find in what degree our increasing numbers have been fed by means of importations, and therefore in what degree our growing wants have been met through the extension of agriculture and by improvements in its processes.

The productions of Ireland being ordinarily more than sufficient for the sustenance of its population, the proposed inquiry will necessarily be confined to Great Britain.

The mean number of the population between 1801 and 1810 was 11,769,725, and the average yearly importations of wheat and wheat

flour during those years having been 600,946 quarters, the home-grown supply sufficed for the food of 11,168,779 persons, at the rate of 8 bushels per annum, or of 10,968,464, at 6 bushels per annum. During the next ten years, the mean population was 13,494,217, and the importations averaged 458,578 quarters yearly. The home supply, consequently, sufficed for 13,035,639 persons, at the rate of 8 bushels, or of 12,882,780, at the rate of 6 bushels per head. There was, consequently, a greater home produce, equal to the food of 1,866,860, or of 1,914,316 persons, according as the average consumption is estimated at 8 or at 6 bushels yearly. Between 1821 and 1830 the mean number living in Great Britain was 15,465,474, and the average yearly importation of wheat and flour were 534,992 quarters. The home-grown corn sufficed, therefore, for 14,930,482 persons, at 8 bushels, or for 14,752,151 persons, at 6 bushels, and the productive power of the land was increased, so as to feed 1,894,843 more persons, at 8 bushels, or 1,869,371 persons at 6 bushels. During the next period of ten years, ending with 1840, the mean population was 17,535,826, and the average yearly importations were equal to the consumption of 907,638, or of 1,210,184 persons, calculated at 8 or at 6 bushels each. Our home produce, therefore, sufficed for either 16,628,188, or for 16,325,642 persons, and the increased number fed from our own soil was 1,697,706 or 1,573,491 persons. Between 1841 and 1849 the mean number living has probably been 19,592,824, and the average importations have increased to 2,588,706 quarters. Our home-grown corn has, therefore, fed 17,004,118 persons, at 8 bushels, or 16,141,216, at 6 bushels per head; and the additional numbers so fed have been 375,930, at 8 bushels, but 184,426 fewer if the consumption be 6 bushels.

This extraordinary progressive increase is shown more clearly by the following figures, from the last line of which we may also see, that if the population of this kingdom is to go forward with the like rate of increase, we must either apply a still stronger stimulus than has yet been used for increasing the productiveness of the soil, or become habitually and increasingly importers of foreign grain. That the first of these alternatives is possible, nay, even easy of accomplishment, is a very general belief among persons who have given attention to the subject, and among whom it is held, that by the judicious application of improvements already within our knowledge, we may not only provide for the entire population, but become and continue for some years to come, exporters of grain, as we were up to nearly the close of the last century.

To realize this result it is, however, necessary that great exertions should be made so as to bring into the most profitable operation the discoveries of science as applied to agricultural processes; and it is clear that this result cannot be brought about through the stimulus of *high*

prices, because from the moment that the home market ceases to absorb the whole of what is grown within the kingdom, the price must fall below that of the foreign markets to which the surplus must be sent. It is rather to the stimulus of *low* prices that we must look to provide that increased quantity which is to make up, safely and satisfactorily, to the producer for falling markets.

Periods of 10 Years.	Mean Number of the Population of Great Britain during each period of 10 Years.	Number of Persons fed upon Foreign Wheat, estimating the Yearly Consumption at 8 bushels per head.	Number of Persons fed upon Foreign Wheat, estimating the Yearly Consumption at 6 bushels per head.	Number of Persons fed upon home-grown Wheat, estimating the Yearly Consumption at 8 bushels per head.	Number of Persons fed upon home-grown Wheat, estimating the Yearly Consumption at 6 bushels per head.	Additional Number of Persons fed upon home-grown Wheat, estimating the Yearly Consumption at 8 bushels per head.	Additional Number of Persons fed upon home-grown Corn, estimating the Yearly Consumption at 6 bushels per head.
1801 to 1810	11,769,725	600,946	801,261	11,168,779	10,968,464	..	..
1811 „ 1820	13,494,217	458,578	611,437	13,035,639	12,882,780	1,866,860	1,914,316
1821 „ 1830	15,465,474	534,992	713,323	14,930,482	14,752,151	1,894,843	1,869,371
1831 „ 1840	17,535,826	907,638	1,210,184	16,628,188	16,325,642	1,697,706	1,573,491
1841 „ 1849	19,592,824	2,588,706	3,451,608	17,004,118	16,141,216	375,930	* 184,426

It is shown by the foregoing table, that in the course of 49 years the increased production of one article of agricultural produce has been equal to the wants of 5,835,339 persons, at the rate of 8 bushels of wheat in the year, or of 5,172,752 persons, if the average consumption be only 6 bushels, and at least the same progress has attended every other branch of agricultural industry. In what degree this advancement is to be experienced hereafter, no one can pretend to foretel. We can, however, estimate with tolerable accuracy our future wants, by assuming that our numbers will go on increasing in the degree that has hitherto been experienced. According to this computation, the mean number of the population of Great Britain between 1871 and 1880 will have reached 29,378,421, being an increase in 40 years of 11,842,595 persons, and requiring an increased supply of wheat to the amount of that number of quarters, at the rate of 8 bushels for each, or of 8,881,946 quarters, at the rate of 6 bushels per annum. Carrying on the computation for 20 years further, to the end of the present century, we shall find that the population of Great Britain will then exceed 40,000,000, and will consequently require an increased quantity of wheat, and of every other kind of agricultural produce, to the extent of 150 per cent. beyond the quantity needed in the period between 1831 and 1840.

Great as we have seen the increase to have been, since the beginning of the present century, in the production of agricultural products in Great Britain, there is reason to believe that a far more profitable result

* Smaller number than in the previous period.

would have followed from the amount of skill and enterprise, and the application of capital to which that increase must be ascribed, but for the restrictions that were placed, in the supposed interests of our agriculturists, upon the importation of articles of food from other countries. By means of those restrictions, and the consequent enhancement of the cost of living, not only was a limit placed to the employment of labour in other branches of industry, through the lessening of the fund out of which that labour would have been rewarded, but the land itself was virtually and injuriously restricted in its application; so that while the energies that have been bestowed upon its cultivation have been chiefly limited to the extension of the growth of certain descriptions of food, our farmers have neglected the production of other articles for which a demand would then have arisen, which would in a greater degree have given employment to labour, have enabled the cultivators to pay a higher rent for the use of the land, and in various ways would have added to the sum of the nation's prosperity.

It would lead to a digression which might be considered out of place in these pages, if any attempt were made to examine the question of agricultural distress, as to which so much has been said year after year, during a very large portion of the time in which the extension of tillage and the increase of production, here described, have been going forward; but we may be allowed to remark, that the parties who, during all that time, have embarked their capitals in this branch of industry, must have been actuated by motives altogether different from those which influence the rest of mankind, if they have, year after year, been content to accelerate their own ruin by increasing the extent of their operations. While the total number of families in Great Britain increased, between 1811 and 1831, from 2,544,215 to 3,414,175, or at the rate of 34 per cent., the number of families employed in agriculture increased only from 895,998 to 961,134, or at the rate of 7¼ per cent. The increased production which is thus seen to have been brought about by a comparatively small addition of labour, has in a great degree resulted from the employment of capital in improving the soil, in draining and manuring,* in throwing down a great part of the fences with which our forefathers were accustomed to divide their farms into small patches;

* The use of crushed bones as a manure was first introduced in 1800; but the practice has not been extensively adopted until within the last twenty-five years. The application of this manure to light soils is now very general, and the result has been such as to raise the value of such lands most materially. The increasing demand causes large quantities of bones to be imported from foreign, and sometimes distant, countries. The numerous herds of cattle that roam in a state of nature over the plains of South America, used formerly to be slaughtered for the sake of their hides, tallow, and horns, which were brought to Europe. Their bones were left to whiten on the plains, but these are now carefully collected together, and ships are regularly despatched to be loaded with them for the use of our farmers. Since 1840 an extensive trade has been carried on in an article called Guano—the deposits of birds on certain islands in the Pacific and off the Coast of Africa; which substance has

through the use of improved implements of husbandry, and, above all, through the employment of a better system of cropping by rotation. Nor should we omit to notice, among the most effective causes of this improved condition of agriculture, the help that has been borrowed from men of science. In particular, the researches of Davy, undertaken at the instance of the Board of Agriculture, about the beginning of the present century, and the more recent investigations of Liebig, may be mentioned as having produced the happiest results, by showing the various resources we can command, through the application of chemical knowledge, for remedying the defects and improving the natural capabilities of different soils. It may be added, that the great agricultural improvements which have taken place since the peace, and which are still in progress, while they negative the notion of an uninterrupted series of losses on the part of cultivators, are, in a great degree, the consequence of the stimulus to exertion supplied by low prices. Had prices continued high, the farmers would, perhaps, have gone on in their old course; but with so considerable a fall as they have experienced in the value of their produce, such a course would have been attended with certain ruin, and in this way the improvements they have made may be said to have been forced upon them.

It would be necessary to write a voluminous treatise on husbandry, minutely to describe the steps by which all the improvements here pointed out have been attained, and to show how they have combined for the production of the good effects which are now witnessed. Our present object will be better answered by describing results generally experienced throughout the country, than by any minute detail of processes, some of which may not, even yet, meet the universal assent of practical agriculturists.

It is much to be regretted that in this country, rich as we are in the possession of facts connected with many branches of social economy, we are almost wholly uninformed with regard to the statistics of agriculture. The knowledge we have upon that most important subject, the quantity of land in cultivation within the kingdom, is entirely due to the industry of an individual whose estimates have never been either confirmed or questioned. What proportion of the cultivated land is applied to the production of any one article of food, it has never been attempted to ascertain. We know every rood of ground that is employed for the

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been found to possess most important fertilising properties. The number of tons of this fertiliser that arrived in our ports, in each year from 1841 to 1849, was as follows:—

Years.	Tons.	Years.	Tons.
1841	2,881	1846	89,203
1842	20,398	1847	82,392
1843	3,002	1848	71,414
1844	104,251	1849	83,438
1845	283,300		

cultivation of hops, because of the direct financial interest which the government has in ascertaining the fact; but it does not appear to be sufficiently understood how the national interest can be concerned in any kind of knowledge that does not yield money to the exchequer; and there is reason to believe, that if, in the absence of compulsory powers conferred by the legislature, any comprehensive measure were adopted by the government, with a view to ascertain the actual condition of the country, as regards its agriculture, so much jealousy, and so many groundless fears would be excited in the minds of the persons from whom the information must be sought, that the returns obtained would be extremely erroneous, or so incomplete as to be of little value.

An endeavour to obtain a part of this knowledge was made about 40 years ago in Scotland, by a spirited individual, the late Sir John Sinclair, by whom the clergy of that part of the island were induced to prepare those accounts of their respective parishes, the collection of which is well known under the name of the "Statistical Account of Scotland." The property of this work was generously made over by Sir John to the Society established in Scotland for the benefit of the sons and daughters of the clergy; and the managers of that Society have since undertaken to produce a new "Statistical Account of Scotland," for the preparation of which they secured the assistance of the parochial clergy—a body in every way qualified for the correct performance of the task. This interesting work has been recently completed, and from an examination of its contents, it must be allowed that the superintending committee are fully justified in the announcement made in their advertisement, that "they now present not merely a new statistical account, but, in a great measure, the statistical account of a new country." There has not been a single parish described in which improvements of some kind or other, and in many cases, to a great extent, are not stated to have been accomplished. A few extracts have been taken at random from the work, and are here inserted to illustrate the various forms, as well as the degree, in which those improvements have shown themselves.

Jedburgh, Roxburghshire.—"Since the period when the last statistical account was written, the state of the parish has been much improved; farms, which were entirely pastoral, now bear luxuriant crops, the fields have been neatly inclosed with hedges, waste ground has been planted, the style of dwelling-houses is now vastly superior, the means of communication have been greatly enlarged, the population has been nearly doubled, and all classes seem to enjoy a large share of the comforts of civilized society."

Melrose, Roxburghshire.—"The chief circumstance in which the present differs from the past state of the parish, is the general enlargement of the farms. Except in the case of a carrier or miller, who rents a few acres to furnish fodder for his horses, a small farm is nearly unknown.

The displacing of the old small tenants was at first viewed with deep regret; but the introduction of a better and more spirited style of agriculture which immediately followed, the rapid improvement of the country, which in a limited period has raised the rental of this parish from 4000*l.* nearly to 20,000*l.* a-year, besides the improved condition of the agricultural labourers, seem to show that it was a change for the better. The land is divided into a limited number of great farms, and the tenants, men of capital and intelligence, are enabled to give the best effect to the virtues of the soil, and the great body of the people live quietly under them as farm servants and hired labourers, having no care but to do their work and receive their wages."

Parish of Kinnettles, Forfarshire.—"There is not only a greater extent put under corn crop, green crop, and artificial grasses, but the same extent yields a produce very much superior, both in quantity and quality, to the produce of former times. Indeed, it may with safety be said, that the produce of grain and green crop is about double of what it was in 1792. Since that period the progress of agriculture has been rapid."

Moffat, Dumfries-shire.—" In the cultivation of the arable soils, a very great improvement has been made; and by removing obstructions, duly manuring and working the lands, observing a proper improved rotation, and keeping down or destroying noxious weeds—and further, by cultivating the most valuable crops—it is not too much to say, that within forty years the returns of the arable soils have become far better, as well as more abundant.

" Let any one now look into the cottages, and he will find them nearly or fully as comfortable as the farm-houses were forty years ago; and let him compare the dress of the cottagers and their mode of living with that of the farmers at the above distance of time, he will find that at present they are not greatly inferior."

Applegarth, Dumfries-shire.—" The difference between the present state of the parish and that which existed at the time of the last statistical account, is, as may naturally be expected, very great, though from the want of minuteness in that account, it is not easy to point out, in many particulars, the precise degree of improvement. The mode of living is more comfortable, while the good old habits of domestic economy have not been impaired. The management of the land is more judicious, and of course it is greatly more productive."

Dundee.—"The land under tillage may be said to be in a very improved state, no labour nor expense being spared to render it highly productive, and there are no particular obstacles to improvement. The following is about the average number of acres at present producing different kinds of grain, and the annual gross amount of raw produce:—

			£.	s.	d.
Wheat,	343 acres, at 32 bushels per acre, and 7s.	per bushel,	3,841	12	0
Barley,	661 „ 44 „ „ „ 3s. 6d.	„	5,089	14	0
Oats,	762 „ 48 „ „ „ 2s. 9d.	„	5,029	4	0
Potatoes,	470 „ £10 per acre		4,700	0	0
Turnips,	521 „ 12 „		6,252	0	0
Grass,	635 acres, averaged, new and old, at £7 per acre . . .		4,445	0	0
Ditto,	555 „ inferior pasture and waste, at £1 per acre . .		555	0	0
			£29,912	10	0

The following table of the number of Inclosure Bills passed by Parliament, and of the average prices of wheat in England, will give a tolerably correct idea of the progress of agriculture in that part of the kingdom during each of the 90 years between 1760 and 1849. For the convenience of examination, this table is divided into nine periods, each consisting of ten years:—

YEARS.	Number of Inclosure Bills passed.	Average Price of Wheat.	YEARS.	Number of Inclosure Bills passed.	Average Price of Wheat.	YEARS.	Number of Inclosure Bills passed.	Average Price of Wheat.
		s. d.			s. d.			s. d.
1760	24	36 6	1790	26	53 2	1820	40	65 10
1761	21	30 3	1791	38	47 2	1821	25	54 5
1762	39	39 0	1792		41 9	1822	13	43 3
1763	31	40 9	1793	46	47 10	1823	9	51 9
1764	66	46 9	1794	42	50 8	1824	12	62 0
1765	60	52 0	1795	39	72 11	1825	24	66 6
1766	49	43 1	1796	75	76 3	1826	20	56 11
1767	35	64 6	1797	86	52 2	1827	22	56 9
1768	60	60 6	1798	52	50 4	1828	16	60 5
1769		45 8	1799	65	66 11	1829	24	66 3
	385	45 10		469	55 11		205	58 5
1770	63	41 4	1800	63	110 5	1830	21	64 3
1771	67	47 2	1801	80	115 11	1831	9	66 4
1772	70	50 8	1802	122	67 9	1832	12	58 8
1773	65	51 0	1803	96	57 1	1833	15	52 11
1774	62	52 8	1804	104	60 5	1834	16	46 2
1775	42	48 4	1805	52	87 1	1835	4	39 4
1776	58	38 2	1806	71	76 9	1836	10	48 6
1777	99	45 6	1807	76	73 1	1837	10	55 10
1778	66	42 0	1808	91	78 11	1838	19	64 7
1779	68	33 8	1809	92	94 5	1839	20	70 8
	660	45 0		847	82 2		136	56 9
1780	45	35 8	1810	122	103 3	1840	14	66 4
1781	25	44 8	1811	107	92 5	1841	22	64 4
1782	15	47 10	1812	133	122 8	1842	11	57 3
1783	18	52 8	1813	119	106 6	1843	11	50 1
1784	15	48 10	1814	120	72 1	1844	8	51 3
1785	23	51 10	1815	81	63 8	1845	..	50 10
1786	25	38 10	1816	47	76 2	1846	..	54 8
1787	22	41 2	1817	34	94 0	1847	..	69 9
1788	34	45 0	1818	46	83 8	1848	..	50 6
1789	24	57 2	1819	44	72 3	1849	..	44 3
	246	45 9		853	88 8		66	55 11

A general Inclosure Act was passed in 1835, under which a Board of Commissioners has been appointed to facilitate the inclosure of com-

mons, and from the yearly reports of the Commissioners, it appears that in the five years from 1845 to 1849, applications have been made to them in 498 separate cases, some of which are too small to have been made the subject of a private separate Act of Parliament, and which, in the aggregate, embrace an area of 273,967 acres.

In the ten years from 1760 to 1769, when the average number of inhabitants of England and Wales was 6,850,000 souls, the quantity of wheat produced was more than sufficient for home use by 1,384,561 quarters—an inconsiderable quantity, and so near to the then wants of the people, that the deficient harvests of 1767 and 1768 occasioned the importation of the comparatively large quantity of 834,669 quarters. There were no means employed during that period for ascertaining the prices of grain with the correctness that has since been attained, and those given in the table cannot be received with confidence. If the Eton price then bore the same proportion it has since borne to the average price as computed for advertisement in the London Gazette, and which is about 10*s.* per quarter below that given in the Eton records, the average price of wheat must have been then about 37*s.* per quarter. At this price agriculture appears to have been considerably stimulated, the number of Inclosure Bills passed by the legislature having been 385.* This stimulus was continued through the next decennary period, when the number of Inclosure Bills was increased to 660. This second period comprised five years of export and five years of import, the imports preponderating in quantity, but not considerably. The mean number of the population had in the mean time advanced to 7,520,000 souls, and the average price of wheat, as ascertained for insertion in the London Gazette, was 45*s.* per quarter. In the next period, viz., from 1780 to 1789, the mean number of the inhabitants had reached 8,170,000 souls, but the supply of wheat was brought more nearly to a level with the demand. Owing to the fluctuations of seasons, six of the ten years were years of export, and four were years of importation, but the excess of the quantity brought in over that sent out was no more than 233,502 quarters. The average price for the whole number of ten years was 45*s.* 9*d.*, having once been as high as 52*s.* 8*d.* In two of the exporting years, viz., 1785 and 1789, the average prices for the year were above 50*s.* per quarter. The number of Inclosure Bills fell off during this period to 246.

In the next period of ten years, from 1790 to 1799, England ceased to be an exporting country for wheat. In 1792 the price fell to 41*s.* 9*d.*,

* In the year 1689 an Act was passed allowing a bounty of five shillings per quarter upon all British-grown wheat exported when the home price did not exceed 48*s.* per quarter. This Act was modified in 1773, so that the bounty was not payable after the average price exceeded 44*s.* per quarter, and in 1815 the bounty was repealed. In point of fact, no bounty could have been claimed in any year after 1792, when the average price for the whole year was only 41*s.* 9*d.*

and a considerable quantity was shipped abroad; but this was the last occasion on which our farmers found relief in foreign markets for an over-abundant stock of grain. The war of the French Revolution immediately followed, and in 1795 a series of deficient harvests began, which forced up the prices of agricultural produce, and caused a great additional number of Inclosure Bills to be passed.

The deficiency was aggravated to a dearth in 1800 and 1801; the price of wheat was driven up to the then unprecedented height of 115*s.* 11*d.* per quarter; and a considerable breadth of land was additionally brought under the plough, the number of Inclosure Bills passed during the ten years from 1800 to 1809 reaching to 847. A trifling export of wheat in 1808, during which year the average price of that grain was 78*s.* 11*d.* per quarter, was not the consequence of any commercial demand from other countries, but was occasioned by military operations in the Peninsula. In 1810, the first year of the next decennary period, we experienced the effects of another deficient harvest, and imported a million and a half quarters of wheat. This fact is worthy of remembrance, as being in a remarkable degree illustrative of the axiom, that no difficulties interposed by governments are adequate to prevent the transmission of goods to a profitable market. A large proportion of the foreign grain at that time brought for consumption to this country was the produce of the soil of our then bitterest enemy; and it surely should be sufficient for us to call to mind this fact, coupled with the remembrance of the deadly character then assumed by the contest between France and England, to be convinced, that so long as we possess the means of paying for the food which other countries can spare, we never need be without an adequate supply of the necessaries of life. The average price of wheat in 1810 was 103*s.* 3*d.* per quarter; but this rate, owing to the then depreciated state of our currency, was not equal to more than about 90*s.* if paid in gold. In 1812 the price advanced to 122*s.*, but the depreciation of the currency was then still greater; and the real price was not beyond 5*l.* per quarter—a price sufficiently high, however, to cause the application of much additional capital to agricultural pursuits, so that in this year 133 Inclosure Bills were passed, being the largest number on record in any one year. The impulse thus given continued to operate for some time. It will be seen by inspection of the table, that 853 Inclosure Bills received the Royal Assent in the ten years between 1810 and 1820; but the increased production thus brought about, together with the much diminished cost of transport from foreign countries, caused so great a reaction in the markets for grain, that the average price of wheat for the year 1814 fell to a rate which, measured by the standard price of gold, was not more than 54*s.* per quarter.

In this state of things the cry of distress among the owners and occu-

piers of land became exceedingly urgent, and the Houses of Parliament so fully sympathized with them as to pass an Act in 1815, by which the monopoly of the home market was secured to the British grower of corn until the average price of wheat should reach 80*s.* per quarter, and that of other grain should attain a proportionate elevation.

For some time but little opportunity was given for judging of the efficacy of this law. A deficient harvest in 1816 caused prices to rise so high as to render the Act inoperative. In 1817 the harvest was again bad; during that year and 1818 more than 2,500,000 quarters of wheat were imported, and the prices, although not nominally so high as they had been in previous years, were extremely burdensome to the people, owing to the operation of the restoration of the currency, which was then in progress.

The previous occasions of deficient harvests which have been noticed were always followed by the application of additional capital for bringing waste or common-field lands into arable cultivation; and it may in some measure be owing to the circumstance of those previous inclosures having greatly reduced the quantity of waste land applicable to this purpose, that the number of Inclosure Bills has since been materially diminished.

The number of Inclosure Bills passed in the ten years between 1820 and 1830 was only 205, not one-fourth part of the number passed in the preceding period of the like duration—a disproportion which is the more remarkable from these circumstances:—that the increase of population, which between 1811 and 1821 amounted to 2,645,738, was 3,113,261 between 1821 and 1831; and that the foreign supply during the first of these intervals was nearly double that obtained in the latter period. The disproportion between the average prices experienced in the two divisions of time was not so great in reality as in appearance, owing to the depreciation of the currency already noticed; but still when full allowance has been made for this consideration, it will be found that the fall of price was nearly 25 per cent. The periods of ten years chosen for making the comparison are sufficiently long for avoiding the objection that the seasons were less genial in the one case than in the other; and it would be impossible even without other evidence of the fact, to arrive at any other conclusion than that a larger amount of produce has been continually drawn from a given portion of ground than was obtained in general at the beginning of the century.

Between 1830 and 1844, a period of 15 years, only 202 Inclosure Bills were passed, being on the average nearly 30 per cent. fewer than in the preceding 10 years, and only about one-sixth of the yearly number passed between 1810 and 1820. In the meanwhile, the population has advanced with accelerated rapidity, while the importations of foreign

wheat have kept pace with that advance, as is shown by the table at page 143 of this volume.

The Select Committee of the House of Commons, which sat in 1813 to inquire into the state of the corn trade, stated in their Report, that through the extension of, and improvements in, cultivation, the agricultural produce of the kingdom had been increased one-fourth during the ten years preceding the time of their inquiry.

Earl Fitzwilliam, whose practical acquaintance with the subject of agriculture few persons will question, has expressed unequivocally his belief that the land has of late years been made, by means of better farming, to yield an increased quantity of produce. The following passage, in which this opinion is given, occurs in his "Second Address to the Landowners of England on the Corn Laws," published in April, 1835:—"It is somewhere about twenty years since we began to hear prophetic annunciations of this approaching abandonment of the soil. That, in the years which intervened between 1810 and the peace, wheat was extracted by a sort of hot-bed cultivation from soils whose natural sterility has, under the diminished pressure of necessity, and the influence of more genial seasons, rescued them from the plough, I entertain not a doubt; but I must confess that I have watched in vain for any extensive fulfilment of the prophecy. On the contrary, I am satisfied that the breadth of land under the plough (taking that as the criterion, though it is none, and I only take it in deference to those with whom I am arguing) is greater than it was in 1814, *and that the produce of equal surfaces of ploughed land has increased in a still greater ratio.*"

The opinion thus confidently expressed as to the increased productiveness of the soil of late years, was very decidedly contradicted by various agriculturists who were examined before a Committee of the House of Commons in 1833. On that occasion some of the witnesses stated, that owing to a deficient application of capital to the land, its annual produce had fallen off in quantity from one-sixth to one-fourth —one gentleman, indeed, said as much as one-third—compared with former periods. It would have been difficult, under any circumstances, to believe that such a state of things could possibly be found existing, to any extent, in connexion with the facts of an opposite character which have been brought forward in these pages; but a slight examination of the evidence given before the committee is sufficient to explain the apparent inconsistency. It will be evident from that examination, that in every case where diminished production is asserted, the witnesses have spoken of the same description of soil—"cold clay lands;" and it is rather illogically argued, that because these lands have from time immemorial been employed for the production of wheat, therefore

a diminution of produce from them necessarily establishes the fact that the rate of production generally is diminished. In answer to this assertion it may be observed, that during the last half century a great revolution has taken place in the management of land, and that by proper attention to the rotation of crops, and by the application of capital to other descriptions of soil, these soils have been brought to a state which enables the farmer to draw from them a better return than would follow the application of the same amount of labour to the old wheat lands. If reference be made to the evidence given before the Committee of the House of Commons, to which the numerous petitions complaining of agricultural distress were referred in 1821, it will be seen that at that time almost the only grain produced in the fens of Cambridgeshire consisted of oats. Since then, by draining and manuring, the capability of the soil has been so changed that these fens now produce some of the finest wheat that is grown in England; and this more costly grain now constitutes the main dependence of the farmers in a district where, a quarter of a century ago, its production was scarcely attempted. It was pretty generally understood at the time that the appointment of the Committee of 1833 was a concession made to those members of the House of Commons who fancied themselves interested in the continuance of the present system of corn-laws, and accordingly the whole tendency of the evidence given appears to have been to make out the existence of distress among agriculturists, the amount of which would be aggravated by any alteration of the law. Under these circumstances, every kind of testimony which would bring to light a state of things adverse to the continuance of protection against foreign importation, was, if not purposely kept back, certainly allowed to appear with reluctance; and yet a body of evidence which proves, from facts which cannot be controverted, that all is not barrenness and desolation in our fields, is to be found in almost every page of that voluminous Report. Everywhere, the condition of agricultural labourers is stated to be visibly amended; while towns in agricultural districts, which are dependent upon the farming interests, have uniformly improved in extent, and in every other circumstance which indicates prosperity. Nor has the situation of the landowner been less materially improved, so far at least as his condition depends upon the rent which he receives for his land. With scarcely any exception, the revenue drawn in the form of rent, from the ownership of the soil, has been at least doubled in every part of Great Britain since 1790. This is not a random assertion, but, as regards many counties of England, can be proved by the testimony of living witnesses, while in Scotland the fact is notorious to the whole population. In the county of Essex, farms could be pointed out which were let just before the war of the French Revolution at less than 10*s.* per acre, and which rose rapidly during the progress

of that contest, until in 1812, the rent paid for them was from 45*s.* to 50*s.* per acre. This advance has not, it is true, been maintained since the return of peace: in 1818 the rent was reduced to 35*s.*, and at the present time is only 20*s.* per acre, which, however, is still more than double that which was paid in 1790. In Berkshire and Wiltshire there are farms which in 1790 were let at 14*s.* per acre, and which in 1810 produced to the landlord a rent of 70*s.*, being a five-fold advance. These farms were let in 1820 at 50*s.*, and at this time pay 30*s.* per acre, being 114 per cent. advance upon the rent paid in 1790. In Staffordshire there are several farms on one estate which were let in 1790 at 8*s.* per acre, and which having in the dearest time advanced to 35*s.*, have since been lowered to 20*s.*, an advance, after all, of 150 per cent. within the half century. The rents here mentioned as being those for which the farms are now let, are not nominal rates from which abatements are periodically made by the landlord, but are regularly paid, notwithstanding the depressed prices at which some kinds of agricultural produce have been sold.

In Norfolk, Suffolk, and Warwickshire, the same, or nearly the same, rise has been experienced; and it is more than probable that it has been general throughout the kingdom. During the same period the prices of most of the articles which constitute the landlord's expenditure have fallen materially; and if his condition be not improved in a corresponding degree, that circumstance must arise from improvidence or miscalculation, or habits of expensive living beyond what would be warranted by the doubling of income which he has experienced and is still enjoying.

The opinion that has been stated in regard to the altered system of farming, and which has caused light soils to be applied to uses for which, in former times, the heavy lands alone were considered fit, is corroborated by a communication made to the Poor Law Commissioners from Worcestershire, and inserted in the Appendix (C. p. 419) to their Report:—"Looking to the rent-rolls (land-tax and other documents) of former times, it will be found, that whilst stiff (wheat and bean) land has stood still, or is rather deteriorated in value, the light, or what is called poor land, from an improved system of cropping, has risen most considerably. I should say, proportionally, that where stiff land yields a rent of 22*s.* to 25*s.* an acre, the light land will bring from 30*s.* to 35*s.*; and what makes the latter more sought after now-a-days is, that it requires fewer horses, and those of inferior strength, less manual labour to keep it clean, and the farmers can 'get upon it' in all weathers, and thereby secure more regular crops."

Among the agents employed for the improvement of agriculture we have now to mention the steam-engine. The fens in Cambridgeshire, Lincolnshire, and other eastern counties in which the low lands known

as the Bedford Level occur, were formerly very imperfectly relieved from their surplus water by means of windmills, and to a considerable extent they are so still. Where this is the case, the farmer has sometimes to witness the frustration of all his hopes for the year, almost at the very period of their expected accomplishment. It frequently happens, that when rain falls in large quantities near the time of harvest there is not a breath of wind to move the sails of his mill, and the field in which the yellow grain was waving is speedily converted into a lake. Some of the land thus circumstanced is among the most fertile in the kingdom, consisting of a bed of decomposed vegetable matter thirty feet in depth, and yielding crops of from four to five quarters of wheat per acre. By the substitution of steam-power for the uncertain agency of wind, the crop is now secured from the disaster we have mentioned. The expenditure of a few bushels of coals places it at all times in the farmer's power to drain his fields of all superfluous moisture, at a comparatively inconsiderable cost. It has been found that an engine of the power of ten horses is sufficient for draining 1000 acres of land, and that on the average of years this work may be performed by setting the engine in motion for periods amounting, in the aggregate, to 20 days of 12 hours each, or 240 hours in all. Several engines have been erected for this purpose within the last three or four years, some of them having the power of 60 or 70 horses; each of these large engines is employed in draining from 6000 to 7000 acres of land. The cost of the first establishment of these engines is stated to be 1*l.* per acre, and the annual expense of keeping them at work 2*s.* 6*d.* per acre. This plan is found to bring with it the further advantage, that, in the event of long-continued drought, the farmer can, without apprehension, admit the water required for his cattle and for the purpose of irrigation, secure in the means he possesses of regulating the degree of moisture, if the drought, as is frequently the case, should be followed by an excess of rain.

The assertion made by many persons who were examined before the Committee in 1833, that the capital engaged in agricultural pursuits has of late years been much diminished through the losses of farmers, and that its amount is now inadequate to the proper development of the powers of production, may well be questioned in the circumstances of abundance which have to so great a degree kept down the necessity for importing foreign grain to supply the demands of our constantly-increasing and fully-employed population.

It is the fashion among persons, in and out of Parliament, who complain of the distressed state of the agricultural interest, to inveigh against the measure adopted in 1819 for regulating the restoring of the metallic currency, as one which has brought ruin and desolation among the farmers. That measure, in conjunction with the law of 1826, which

prohibited the issue of notes for less sums than 5*l.*, is said to have deprived the occupiers of land of the resource they previously had in the country banker, who was always willing to accommodate them with the loan of his notes. Let us suppose that those who thus complain should succeed in their endeavours to procure the repeal or modification of these alleged injurious laws—what would be the best result they could anticipate? They might not be forced to bring their produce so early to market, and, by keeping it back, might for a time raise the price and check consumption. Let us imagine that this effect is produced to the extent of one-tenth of their crops. In the next year this operation would be repeated, and the surplus on hand would amount to one-fifth, and even more, because, by the application of the banker's capital, larger harvests would be obtained. It is but little likely that with so large a surplus produce on hand, prices could be so long maintained above their natural level; but let us suppose that all the farmers in the kingdom should act upon this system for ten years, in what respect would their situation be benefited at the end of that time? They would have in their rick-yards produce equal to at least one year's consumption beyond the ordinary stock, and this surplus would be actually and purely surplus, and altogether unsaleable, except at prices which would create markets for it in other countries.

The result here supposed appears to be that which would necessarily follow a re-enactment of the Bank Restriction Act, from placing fictitious capital in the farmers' hands, if such a measure could be adopted without at the same time influencing prices generally throughout the country. But it is idle to suppose that the effect of making any great permanent addition to the currency would be limited to agricultural produce. Theory and experience unite in showing that a general rise of prices must unavoidably follow any such addition. Under these circumstances, the only person to be benefited is the man who has pecuniary obligations to discharge, the amount of his gain being the unerring measure of his creditor's loss. This effect, besides, can have no operation except upon engagements contracted before the enlargement of the circulation; all future operations would be governed by the new state of things; and thus, for the sake of procuring relief for a limited class of persons, certain injustice is to be committed upon others, our foreign commerce is to be subjected to hazardous experiments, the employments of our artisans are to be circumscribed, and the whole relations of society disarranged.

It is not possible to state the amount of land which has been brought into cultivation under the Inclosure Acts of which mention has been made. In a Report drawn up by a Committee of the House of Commons, which sat in 1797 to inquire into the state of the waste lands, an estimate is given of the number of acres which had been comprised in

the Inclosure Bills carried into execution between 1710, when the first Inclosure Bill was passed in England, and the time of the inquiry. If the estimate of this Committee be taken as the basis of a further calculation, it will be found that the whole number of acres brought into cultivation from the beginning of the reign of George III. to the end of the year 1849 has been 7,350,577 :—

Years.	Acres.	Years.	Acres.
From 1760 to 1769	704,550	From 1810 to 1819	1,560,990
„ 1770 „ 1779	1,207,800	„ 1820 „ 1829	375,150
„ 1780 „ 1789	450,180	„ 1830 „ 1839	248,880
„ 1790 „ 1799	858,270	„ 1840 „ 1844	120,780
„ 1800 „ 1809	1,550,010	„ 1845 „ 1849	273,967
Total . . .	7,350,577 Acres.		

The proportion brought into use since the commencement of the present century has, according to this estimate, been 4,129,777 acres, three-fourths of which were so appropriated in the first twenty years. It may serve to illustrate the position that has been advanced concerning the improved methods of cultivation pursued during recent years, if the proportionally decreasing quantities of land brought into use during the four decennary periods from 1801 to 1841, and subsequently, are exhibited in contrast with the increase of the population during the same period in the United Kingdom :—

Years.	Inclosure Bills.	Acres.	Increase of Population.
1801 to 1810, inclusive,	906	1,657,980	2,209,618
1811 „ 1820 „	771	1,410,930	2,645,738
1821 „ 1830 „	186	340,380	3,113,261
1831 „ 1840 „	129	236,070 (estimated)	2,610,272
1841 „ 1849 „	66	369,127	1,044,108

Some further light will be thrown upon this subject by the insertion of a statement, distinguishing the quantities of land which were in a state of cultivation from those of land uncultivated but improvable, and from unprofitable wastes in the several counties of each division of the kingdom, as computed in the beginning of 1827. This statement, which was drawn up by Mr. William Couling, a civil engineer and surveyor, was delivered in by him when examined before the Select Committee of the House of Commons, appointed in that year to inquire into the subject of Emigration from the United Kingdom. It does not pretend to absolute accuracy; but considerable knowledge and industry having been employed in preparing it, the statement may be received as a near approximation to the truth, and as the best evidence that can be adduced on the subject. In support of his statement, Mr. Couling told the Committee that his calculations were for the most part the result of personal inspection, he having carefully examined the greater part of 106 counties, and partially travelled over the remaining 11, the aggregate length of his journeys, for the purpose, having exceeded 50,000 miles. Mr. Couling further assured the Committee, that where he had not enjoyed

the means of making personal inspection, he had consulted and availed himself of the very best authorities for completing his estimates.

ENGLAND.

COUNTIES.	Cultivated.	Uncultivated.	Unprofitable.	Summary.
Bedford	248,000	31,000	17,320	296,320
Berks	380,000	75,000	28,840	483,840
Buckingham	440,000	5,000	28,600	473,600
Cambridge	500,000	17,000	32,120	549,120
Chester	594,000	40,000	39,280	673,280
Cornwall	550,000	190,000	109,280	849,280
Cumberland	670,000	150,000	125,920	945,920
Derby	500,000	100,000	56,640	656,640
Devon	1,200,000	300,000	150,560	1,650,560
Dorset	573,000	25,000	45,200	643,200
Durham	500,000	100,000	79,040	679,040
Essex	900,000	10,000	70,480	980,480
Gloucester	750,000	6,000	47,840	803,840
Hants	900,000	80,000	61,920	1,041,920
Hereford	495,000	24,000	31,400	550,400
Hertford	310,000	8,000	19,920	337,920
Huntingdon	220,000	3,000	13,800	236,800
Kent	900,000	20,000	63,680	983,680
Lancaster	850,000	200,000	121,840	1,171,840
Leicester	480,000	5,000	29,560	514,560
Lincoln	1,465,000	180,000	113,720	1,758,720
Middlesex	155,000	17,000	8,480	180,480
Monmouth	270,000	30,000	18,720	318,720
Norfolk	1,180,000	78,000	80,880	1,338,880
Northampton	555,000	50,000	45,880	650,880
Northumberland	900,000	160,000	137,440	1,197,440
Nottingham	470,000	28,000	37,680	535,680
Oxford	403,000	50,000	28,280	481,280
Rutland	89,000	1,000	5,360	95,360
Salop	790,000	20,000	48,240	858,240
Somerset	900,000	88,000	62,880	1,050,880
Stafford	560,000	85,000	89,720	734,720
Suffolk	820,000	88,000	59,680	967,680
Surrey	400,000	50,000	35,120	485,120
Sussex	625,000	170,000	141,320	936,320
Warwick	510,000	30,000	37,280	577,280
Westmoreland	180,000	110,000	198,320	488,320
Wilts	500,000	200,000	182,560	882,560
Worcester	400,000	30,000	36,560	466,560
York	2,500,000	600,000	715,040	3,815,040
	25,632,000	3,454,000	3,256,400	32,342,400

WALES.

Anglesea	150,000	10,000	13,440	173,440
Brecknock	300,000	80,000	102,560	482,560
Cardigan	245,000	80,000	107,000	432,000
Carmarthen	342,000	60,000	221,360	623,360
Carnarvon	160,000	60,000	128,160	348,160
Denbigh	360,000	20,000	25,120	405,120
Flint	130,000	10,000	16,160	156,160
Glamorgan	305,000	60,000	141,880	506,880
Merioneth	350,000	20,000	54,320	424,320
Montgomery	240,000	100,000	196,960	536,960
Pembroke	300,000	20,000	70,400	390,400
Radnor	235,000	10,000	27,640	272,640
	3,117,000	530,000	1,105,000	4,752,000

SCOTLAND.

COUNTIES.	Cultivated.	Uncultivated.	Unprofitable.	Summary.
Aberdeen	300,000	450,000	520,740	1,270,740
Argyle	308,000	600,000	1,524,000	2,432,000
Ayr	292,000	300,000	432,000	1,024,000
Banff	120,000	130,000	70,000	320,000
Berwick	160,000	100,000	25,600	285,600
Bute	60,000	40,000	65,000	165,000
Caithness	70,000	75,000	250,680	395,680
Clackmannan	22,000	5,000	3,720	30,720
Cromarty	20,000	5,000	14,690	39,690
Dumbarton	70,000	50,000	27,200	147,200
Dumfries	212,000	320,000	620,000	1,152,000
Edinburgh	181,000	20,000	29,400	230,400
Elgin	120,000	200,000	217,600	537,600
Fife	200,000	85,000	37,560	322,560
Forfar	200,000	220,000	117,600	537,600
Haddington	100,000	30,000	30,000	160,000
Inverness	500,000	750,000	1,694,000	2,944,000
Kincardine	110,000	50,000	42,870	202,870
Kinross	30,000	10,000	13,120	53,120
Kirkcudbright	110,000	200,000	254,480	564,480
Lanark	220,000	195,000	141,800	556,800
Linlithgow	50,000	10,000	11,680	71,680
Nairn	70,000	30,000	28,000	128,000
Peebles	104,000	80,000	46,400	230,400
Perth	500,000	550,000	606,320	1,656,320
Renfrew	100,000	20,000	34,240	154,240
Ross	301,000	545,000	929,830	1,775,830
Roxburgh	200,000	100,000	157,600	457,600
Selkirk	85,000	30,000	53,320	168,320
Stirling	200,000	50,000	62,960	312,960
Sutherland	150,000	600,000	372,560	1,122,560
Wigton	100,000	100,000	88,960	288,960
	5,265,000	5,950,000	8,523,930	19,738,930

IRELAND.

Antrim	336,400	218,870	119,136	674,406
Armagh	166,000	92,430	51,233	309,663
Carlow	173,000	34,000	15,021	222,021
Cavan	265,400	160,500	61,720	487,620
Clare	579,000	104,400	88,044	771,444
Cork	1,188,000	361,000	150,056	1,699,056
Donegal	507,000	417,920	175,951	1,100,871
Down	349,000	126,170	89,481	564,651
Dublin	159,130	49,920	21,071	230,121
East Meath	465,000	40,120	26,078	531,198
Fermanagh	254,000	120,500	84,689	459,189
Galway	829,200	532,040	242,479	1,603,719
Kerry	556,300	348,410	144,483	1,049,193
Kildare	259,990	87,670	35,875	383,535
Kilkenny	403,100	58,100	25,367	486,567
King's County	341,310	80,900	34,954	457,164
Leitrim	222,250	128,200	64,189	414,639
Limerick	460,000	114,110	52,425	626,535
Londonderry	279,400	172,070	80,214	531,684
Longford	121,900	41,460	53,963	217,323
Louth	157,000	12,000	10,415	179,415
Mayo	502,900	565,570	212,302	1,280,772
Monaghan	257,000	12,000	21,952	290,952
Queen's County	311,100	47,120	22,966	381,186
Roscommon	348,000	122,460	91,113	561,573
Sligo	143,500	189,930	66,953	400,383
Tipperary	693,200	113,490	92,329	899,019

Summary.

	140,800
	130,359
	548,440
	1,119,159
	14,441,944
	1,111,159
	77,394,433

Annual Value of Waste in present state.	Incapable of Improvement	Summary.
Sterling Pounds.	Statute Acres.	Statute Acres.
1,700,000	3,256,400	32,342,400
200,000	1,105,000	4,752,000
1,680,000	8,523,930	19,738,930
1,395,000	2,416,664	19,441,944
25,000	569,469	1,119,159
5,000,000	15,871,463	77,394,433

up to the beginning of 1827, the in the United Kingdom, includ- ews and pastures, amounted to ssible two acres for each inhabitant, of 1826 having been 23,061,414 the Inclosure Bills passed since that year, before described, has amounted to no more than numbers added to the population have acres, while the acres thus affording not one-eighth part of an acre per souls additional inhabitants. This must be considered a further

proof of the generally increased productiveness of the soil during the last few years.

The land in cultivation at the beginning of the century, computed from Mr. Couling's statement, in connexion with the number of Inclosure Bills, was 42,881,880 statute acres, and the population having at that time been 16,338,102, the proportion of cultivated land was 260 statute acres for each 100 inhabitants.

The additions since made, by computation, to the cultivated land* and to the population have been 4,129,777 acres and 12,669,107 inhabitants; so that for every 100 individuals added to the population only 32 acres have been brought into cultivation, being about a rood and a quarter for each person. If the whole breadth of land now in cultivation were divided equally among the population, one acre and two-thirds of an acre would fall to the lot of each. It thus appears that 10,000 acres of arable and pasture land, which, as cultivated in 1801, supported 3810 inhabitants, do, at the present day, owing to the improvements brought about in the art of agriculture, support 5997 inhabitants.

If the division of the cultivated land into arable and pasture, made by Mr. Couling, be correct, the number of statute acres at present under cultivation by the spade and plough in the United Kingdom is about two-fifths of the whole cultivated land of the country. Supposing the same proportion to be preserved, if the whole of the improvable land now uncultivated were brought to its full use, an addition would be made to the arable and garden land of 6,000,000 of acres; and if the scale of productiveness were continued at its present amount, this quantity would furnish food for 8,726,000 people—a number which, at its present rate of progression, will have been added to our population in less than a quarter of a century from the present time. It is certain, however, that the land which has hitherto lain neglected is not of the average fertility, and, in the case assumed, of no further improvements being brought about in the processes of agriculture, the limit of production would be overtaken by the population at an earlier period than that now mentioned. This, however, is a state of things by no means likely to arrive. On the contrary, there is every reason to hope and to expect that the improvements which of late years have been begun in the processes of husbandry, are very far from having reached their utmost limit. Even in England, where the advances hitherto made have been so great as to place our farmers before those of many other countries, much may yet be done by introducing the profitable practices of some districts into the remaining parts of the kingdom, and by the consolidation of small holdings into farms of greater size, in the hands

* This calculation proceeds upon the supposition that not any of the land inclosed was previously cultivated; which, however, is far from having been the case.

of men possessed of both capital and intelligence, as well as by the probable discovery of still superior methods of culture, through the labours of experimentalists and the researches of men of science. It has been affirmed, that in Wales the land does not produce half of what it is capable of producing; and that if all England were as well cultivated as Northumberland and Lincoln, it would produce more than double the quantity that is now obtained. We have seen that out of 236,343 males, 20 years of age, who were occupiers of land in England in 1831, the large proportion of 94,883 employed no labourers, while the remaining number of occupiers (141,460) employed among them only 744,407, being in the proportion of 5¼ labourers to each farmer. This shows that a considerable number of their holdings must have been of small extent, and that consequently the amount of capital and knowledge requisite for the full development of the powers of the soil was not applied to it. The proportion of labourers required for the efficient cultivation of a given extent of land must of course vary with local circumstances, such as the nature of the soil and the uses to which it is applied. It has been stated by a good practical authority, that "three labourers to 100 acres are a full complement," but that many persons whose means are circumscribed do not employ more than two labourers for tilling that extent of land.

In Scotland, where, within the experience of the present generation, the most marked improvement has been effected in agriculture, the evil just pointed out still exists in a much greater degree than in England. In 1831, of 79,853 males, 20 years of age, occupiers of the soil, 53,966, being more than two-thirds of the number, did not employ labourers, while the 25,887 who did not depend wholly upon the labour of their own hands for tilling the land, gave employment to no more than 87,292 labourers, being only 3⅓ labourers to each holding. In Ireland, the system of parcelling out the land to numerous cottiers, whose scanty means do not enable them to grow more than suffices for their own consumption, while the stipulated rent is frequently paid by labour and not in money, prevails to an extent which renders it the most fruitful source of misery to that country. Out of 108,608 males, 20 years old, occupying land in Ireland in 1831, more than three-fourths (87,819) came under the class just described. On the other hand, those few farmers who employ the labour of others do so to a greater extent on the average, than English farmers, the proportion being 7½ labourers to each farmer.

The distinction drawn in 1831 between the occupiers of land who do and those who do not employ labourers was not made at either previous census, so that we have no means of judging by such an indication of the progress of agricultural improvement; but it is well known that the tendency of late years—at least in England and Scotland—has been to

enlarge the size of farms, and to place them under the charge of men possessed of capital, who have enjoyed a degree of instruction beyond that which fell to the lot of farmers in those days, the departure of which is deplored by the poet,

"When every rood of ground maintain'd its man."

By the employment of means such as have here been indicated, there can be no doubt that for a much longer period than twenty years, the soil of these islands will continue to yield the largest proportion of the food of the inhabitants; and when at length the increase of population shall have passed the utmost limit of production, there can be no reason to doubt that we shall still obtain, in full sufficiency, the food that we shall require. The limited extent of cultivable land necessarily limits also the number of labourers employed upon it; the additional hands will consequently have to betake themselves to the manufacture of articles desired in other countries, where a different order of things will exist, and those hands, while there exists no obstacle to the admission of foreign grain, will be as effectually engaged in producing food, when employed in the cotton-mills of Lancashire, and the iron-mines of Yorkshire and Staffordshire, as if their industry were applied directly to the cultivation of the soil.

It has been seen that the meadows and pastures of the United Kingdom amount to 27,000,000 of acres, or about three-fifths of the land hitherto brought under cultivation. The whole of this meadow and pasture land, with the exception of that part required for the production of fodder and pasturage for horses used for pleasure or for trading purposes, is used equally with arable land for the production of human food.

A very general opinion now prevails, that by means of the extension of railroads throughout the country, a large proportion of the pasture land here spoken of, as well as that important portion of the arable land which at present is employed in raising grain for horses, will be rendered more directly available than at present for the service of man. It is said that the successful establishment of the railroad between Liverpool and Manchester, a distance of little more than 30 miles, has had the effect of dismissing from that particular employment 1000 horses. The great extent and peculiar nature of the traffic between the two towns here mentioned will not justify the expectation of a similar saving through the establishment, in other quarters, of railroads of the like extent; but the saving from this source might certainly be productive of some effect, in placing at a somewhat greater distance, than would otherwise be the case, the time when the United Kingdom will cease to produce the principal part of the food of its inhabitants. It is not necessary for us, in order to convince ourselves of this, to adopt any of

the extravagant calculations which have been offered upon the subject. The tendency towards exaggeration in the estimate of prospective advantage is at all times great, and it appears to amount almost to a moral necessity that projectors should deceive themselves upon such points. Against the effects of such exaggerations proceeding from persons of that class, the public mind is usually pretty well preserved, but the mischief becomes of a more serious nature when extravagant estimates are advanced and supported by such a body as a Committee of the House of Commons, the members of which are called upon to form a calm and reasonable judgment on the testimony brought before them by interested or over-sanguine parties, while their knowledge of the subjects submitted to their investigation ought to be such as should at least preserve them from the adoption and advocacy of any very glaring absurdities. In a Report presented by a Committee appointed to inquire into the subject of railroads, it is gravely stated that the effect of constructing railroads between the principal towns of the kingdom, would be to render unnecessary no fewer than a million of horses.* A very slight examination of the documents bearing upon this question, within their reach, would have sufficed to preserve the Committee from hazarding so extravagant an assertion. The extent of turnpike-roads in Great Britain, as they existed in 1829, amounted to 24,541 miles; and if the whole of these roads were converted into railroads, and the traffic upon every part of them were fully equal to that already mentioned as the estimate for the Liverpool and Manchester line, the number of horses that would by such means be rendered superfluous would amount to only 785,312. It would be greatly beyond the mark to estimate the saving at one-fourth of this number, or less than one-fifth of the million stated in the Committee's Report. But much more direct means of testing the accuracy of the Committee's estimate were at hand, furnished by detailed returns made from the Tax Office of the number of horses in respect of which assessed duties were charged in 1832, and which, including horses used in trade and that description of farm horses not wholly used in husbandry, upon which the duty is still retained (124,076), amounted to no more than 340,678. However much the railroad system may be extended, it is certain that a very large proportion of these animals must still be kept. Nearly all those employed for pleasure, and for the internal trade of towns, as well as the whole of those used on farms, would be continued.

A further examination of the returns made by the Tax Office proves that the anticipation of the Committee of the House of Commons has

* In many cases where railroads have been opened, it has been found that, although the use of horses has been discontinued upon the direct line, the increased traffic has made it necessary to employ, for bringing travellers to the railroad, at least as great a number of horses as had been displaced.

not hitherto been realized. In 1823, the first year following the repeal of the duty on horses used in husbandry, and when the railway system had no existence, the number of all kinds of horses chargeable with duty was 305,275, whereas in the latest year to which the statements reach (1848-9) the number chargeable was 317,319, a result which completely refutes the notion of any serious diminution in the number of horses employed by reason of the opening of railroads.

There are not any documents from which the number of horses kept in this country can be ascertained. The elements for such a computation, which never were very complete, have of late years been rendered much less so, through the repeal of the taxes levied upon horses used for various employments. These taxes having existed up to 1822, a statement is here given of the number of each description of horses charged to the duty in 1821, with the numbers for some recent years, of horses in respect of which the tax is continued:—

	Year ending 5th April			
	1821	1844	1848	1849
Horses used for riding or drawing carriages:—	No.	No.	No.	No.
By persons keeping 1 horse	117,017	83,471	78,335	76,721
" 2 "	28,086	33,680	34,719	33,825
" 3 "	11,004	11,421	12,242	11,822
" 4 "	6,144	5,971	6,496	6,332
" 5 "	3,410	2,958	3,109	2,982
" 6 "	2,394	2,120	2,280	2,234
" 7 & 8	2,532	2,234	2,295	2,085
" 9 "	648	569	730	799
" 10 to 12	1,635	1,186	1,178	1,136
" 13 to 16	541	757	754	727
" 17 "	102	100	102	92
" 18 "	54	72	144	147
" 19 "	95	77	115	95
" 20 and upwards	1,128	1,230	1,352	1,377
Total number charged progressively	174,790	145,846	143,851	140,374
Horses let to hire	1,616	1,859	1,777	1,819
Race Horses	579	1,098	1,530	1,476
Horses not exceeding 13 hands high	11,536	21,736	22,008	21,586
Horses ridden by farming bailiffs	1,010	40	31	37
Horses ridden by butchers	3,631	3,281	4,755	4,261
Horses not wholly used in husbandry	135,542	..	..	..
Horses used in trade	..	129,709	147,401	147,766
	328,704	303,569	321,353	317,319
Horses used in husbandry, charged at various rates of duty, according to the rent of the farm, &c., and which have been repealed in and since 1822	832,726	exempt	exempt	exempt
Total number upon which duties were charged	1,161,430	303,569	321,353	317,319

It appears from this table, that of the horses liable to duty there are not more than 180,000, out of which the saving contemplated by the Committee can be made. But the returns from the Tax Office do not include horses used in posting, in stage-coaches, mail-coaches, or hackney-coaches. The duties paid by the owners of these animals are

collected by a different department of the revenue, and the duty being calculated upon the amount of work performed, no return is made of the number of horses kept by each employer. In Middleton's "Survey of Middlesex," the number of such horses was estimated at 100,000 for the whole of England and Wales; Mr. M'Culloch states, as the result of more recent inquiries, that "if the number of such horses in Great Britain is now estimated at 125,000, we shall be decidedly beyond the mark."

CHAPTER II.

MANUFACTURES.

WOVEN, &c. FABRICS.

Manufacturing skill of England—Its political consequences during the last war—Introduction of woollen manufacture—Prohibition to export English wool—Removal of prohibition, and its consequences—Woollen goods exported—Number of Woollen Factories—Foreign wool imported—Production of wool in England in 1800, 1828, and 1844—Stuff trade—Cotton manufacture—Cotton imported since 1800—Cotton goods exported since 1820—Decreasing cost of yarn—Advantages of power-looms—Cost of weaving—Number of power-looms—Hand-loom weavers—Labour employed in spinning and weaving factories—Diminished proportion required to produce equal effects—Increased proportion of power-weaving—Progressive extension of cotton factories—Power-looms in various manufactures—Cotton-printing—Effect of removing duty on printed goods—Hosiery—Bobbin-net—Extent and value of cotton manufactures in 1833—Silk manufacture—Its progress during and since prohibition—Export of silk goods—Distribution of silk factories, and number of persons employed in 1835 and 1839—Effect of high duties in promoting smuggling—Linen manufacture—Quantities exported—Flax-spinning—Prices of yarn and canvas at different periods—Wages—Improvements in spinning—Importations of flax—Distribution of flax factories, and number of persons employed in 1835 and 1839.

ENGLAND has long stood pre-eminent for the skill of its inhabitants in manufactures of various kinds. But for that skill, and the extraordinary degree of development which it has experienced during the past half century, it is not possible to conceive that this country could have made the financial efforts which enabled us to carry on the long, and, beyond all precedent, the expensive war of the French Revolution. It has been a common assertion with a very powerful class in the community, that the extraordinary efforts here alluded to were principally, if not entirely, made at the expense of the proprietors of the soil. This position can only be rendered tenable by showing that the condition of those proprietors during the war was one of privation and sacrifice, whereas it is notorious that the direct contrary of such a state of things was experienced; that through the enhanced prices of all kinds of agricultural produce, rents were more than doubled; and that the landlords were then enabled to assume a scale of expensive living, to continue which, after the return of a more natural order of things, they had recourse to restrictions upon the importation of food, which were long felt as an injury by all other classes, although they

may not have been equally successful in perpetuating high rents and prices.

It is to the spinning-jenny and the steam-engine that we must look as having been the true moving powers of our fleets and armies, and the chief support also of a long-continued agricultural prosperity. The views developed in the preceding pages go far to show that it was owing to the effects of these powerful agents in providing employment for a large proportion of our rapidly increasing population, that the system under which the introduction of human food into this country was regulated or restricted, was capable of producing, in any degree, that higher scale of prices, as compared with other countries, which the agriculturists of Great Britain received for their produce. Restore to their former proportions the numbers of the people who live by agricultural employments, and of those who live by manufacturing industry, while at the same time you retain the increased productiveness of the soil, and it would not be long before the prices of farming produce would fall at least to the level of the prices of surrounding countries. So long as the disproportion of the two classes is maintained at its present rate, it is probable that England will continue a non-exporting country in regard to provisions, and that the prices of food, while even the utmost freedom of importation is allowed, will always be greater here than in neighbouring kingdoms, by all the cost of transport, enhanced by the ordinary profits of trade.

The manufacture of woollen goods is said to have been introduced into this country by the Romans; but the tradition is not confirmed by any certain records. There is no doubt that broad-cloths were made in England as early as the close of the twelfth or beginning of the thirteenth century; but the Flemings were at that time far more advanced in the art than our countrymen, and a considerable part of the cloths then, and for a long time afterwards, worn in this country, were made in Flanders from wool, the produce of English flocks.

From a very early period the woollen manufacture has been an object of the especial protection of the English government. Originally, indeed, the freest exportation of British wool was allowed; but in 1660 it was strictly prohibited, and this law remained in force until 1825. The prohibition was grounded upon the belief that the long-staple or combing-wool of England is superior for some manufacturing purposes to that of any other country, and that by keeping the raw material at home we should secure to ourselves the exclusive manufacture of certain fabrics. The mistaken policy of this selfish system has been rendered fully apparent since its abandonment. No sooner were the French manufacturers able to procure the combing wool of England, than they set their ingenuity at work to profit fully from the concession, and produced new stuffs from English wool superior to any that we had

ever produced in this country. Thus stimulated, our manufacturers also applied themselves to the discovery of superior processes, and in the course of a very few years have produced merinos and other stuffs in every respect equal to the fabrics of France. By this means our stuff manufacture has received an important impetus. In the five years from 1820 to 1824, while the prohibition to export English wool was still in force, the average annual shipments of that description of woollen goods amounted to 1,064,441 pieces. In the five years following, during which the removal of the restriction occurred, the average annual export of such goods amounted to 1,228,239 pieces; and in the next quinquennial period, from 1830 to 1834, the average rose to 1,505,993 pieces; between 1835 and 1839, the average export was 1,429,057 pieces; and during the five years, 1840 to 1844, it reached 2,128,212 pieces, being exactly double the quantity exported during the last five years in which the prohibition existed: thus furnishing a satisfactory answer to those persons who predicted, as a necessary consequence of a departure from a restrictive policy, the absolute ruin of that branch of our export trade. In 1337, with the intention of insuring to the manufacturers the full advantage of the home market, an Act was passed forbidding any one to wear cloths of foreign manufacture; but this law, which was never very strictly enforced, was soon after repealed.

The value of woollen goods exported from England in 1700 was about 3,000,000*l.* At the beginning of the present century, notwithstanding the great extent to which articles made of cotton had in the intermediate time been substituted for woollen clothing, the value of our exports of woollen goods amounted to about double that sum. We have not any record of the quantity of goods exported at these periods, but as the price of wool at the end of the last century was more than double what it had been at the beginning, it is probable that the number of yards and pieces sent away was not much, if at all, greater at the later than it had been at the earlier period. It will be seen from the following table that the value of our exports of woollens has not become greater since the beginning of this century; but owing to the diminished price of wool, and the great economy that has been attained in various manufacturing processes, the quantities have, on the whole, considerably increased. The largest export, in point of value, that ever took place, occurred in the year 1815, when, owing to the interruption of intercourse with the United States of America in the two preceding years, the quantities sent to that country were unusually great. The number of pieces exported to all parts in that year was 1,482,643, the number of yards 12,173,515, and the total value 9,381,426*l.*, of which 4,378,195*l.* was sent to the United States.

An Account of the Quantities of British Manufactured Woollen Goods Exported in each year from 1815 *to* 1849.

Years.	Cloths of all sorts.	Napped Coatings, Duffels, &c.	Kersey-meres.	Baizes of all sorts.	Stuffs, Woollen or Worsted.	Flannel.	Blankets and Blanketing.	Carpets and Carpeting.	Woollens, mixed with Cotton.	Hosiery.	Sundries unenume-rated.	Total declared Value.
	Pieces.	Pieces.	Pieces.	Pieces.	Pieces.	Yards.	Yards.	Yards.	Yards.	Dozens.	£.	£.
1815	638,369	88,588	92,691	69,687	593,308	7,056,271	3,397,187	793,793	926,264	202,900	265,200	9,381,426
1816	467,222	90,481	91,183	50,038	585,842	3,592,331	1,934,469	820,038	764,435	119,465	182,461	7,842,768
1817	478,378	93,329	83,493	61,174	683,448	2,814,101	2,305,565	642,586	851,874	100,385	147,373	7,173,735
1818	446,872	78,525	104,468	58,578	937,944	4,621,860	2,706,904	1,144,330	824,848	161,217	170,497	8,140,767
1819	340,044	60,374	71,643	39,796	717,581	3,622,761	1,777,719	620,630	495,557	101,473	82,909	5,984,130
1820	288,700	59,644	78,944	37,183	828,901	2,569,105	1,288,409	526,124	407,716	59,960	39,337	5,586,138
1821	375,464	69,622	91,402	41,610	1,022,342	3,504,851	1,424,238	764,922	627,800	107,779	38,986	6,462,866
1822	420,497	67,757	95,870	43,447	1,078,428	4,503,612	1,926,711	884,922	1,120,326	136,597	47,042	6,488,167
1823	356,027	54,226	94,344	41,539	1,150,133	4,311,997	2,131,632	778,426	918,469	106,420	44,619	5,636,586
1824	407,720	51,585	108,012	47,105	1,242,403	3,105,961	1,990,041	848,842	1,393,443	113,123	43,361	6,043,051
1825	384,880	45,268	126,448	47,100	1,138,808	2,959,594	2,162,834	888,324	1,793,301	106,498	45,335	6,185,648
1826	328,559	41,800	86,038	36,862	1,125,308	2,423,120	1,082,582	903,597	531,517	71,922	37,223	4,966,879
1827	371,965	51,690	122,049	47,574	1,258,667	2,518,887	1,899,600	1,195,939	846,768	148,117	43,559	5,245,649
1828	335,042	40,646	84,524	49,567	1,310,853	2,539,766	2,097,542	1,197,947	981,152	159,463	48,314	5,069,741
1829	363,075	16,186	33,465	52,777	1,307,558	1,572,920	1,839,961	811,538	1,074,077	91,285	41,948	4,587,603
1830	388,269	22,377	34,714	49,164	1,252,512	1,613,099	2,176,391	672,869	1,099,518	111,146	54,038	4,728,666
1831	436,143	13,892	29,650	30,259	1,487,404	1,572,558	2,546,328	678,656	1,000,004	143,774	64,648	5,232,013
1832	396,661	23,453	40,984	34,874	1,800,714	2,304,750	1,681,840	690,042	1,334,072	152,810	55,443	5,244,478
1833	597,189	19,543	31,795	45,036	1,690,559	2,055,072	3,128,106	667,377	1,605,056	232,766	78,236	6,294,432
1834	521,214	22,868	23,891	43,338	1,298,775	1,821,394	2,537,772	606,912	1,723,069	173,063	75,841	5,736,870
1835	619,886	20,083	29,203	47,854	1,673,069	2,067,620	3,122,341	938,848	1,778,389	207,014	110,688	6,840,511
1836	720,587	22,814	29,610	45,555	1,406,000	2,190,008	4,333,876	1,008,013	1,467,927	163,182	142,553	7,639,353
1837	387,787	23,605	22,930	43,477	1,041,636	1,685,457	2,431,683	753,964	1,051,972	74,947	92,617	4,655,977
1838	587,903	26,847	36,428	41,813	1,358,984	1,779,525	2,558,806	727,539	1,846,231	109,758	123,335	5,795,069
1839	392,854	25,025	32,572	27,749	1,665,596	1,727,025	3,148,846	906,489	2,388,282	175,023	258,379	6,271,645
1840	215,746	16,094	27,122	36,044	1,718,617	1,613,477	2,162,653	758,639	3,628,874	96,946	164,034	5,327,853
1841	213,125	11,491	22,131	37,160	2,007,366	1,820,244	2,187,329	809,315	5,015,087	135,909	163,900	5,748,673
1842	161,675	8,433	22,467	24,877	1,979,492	1,619,496	1,332,591	763,762	6,950,010	137,062	152,629	5,185,045
1843	241,160	5,273	29,263	21,130	2,443,371	1,719,699	1,765,970	747,346	11,199,975	147,507	192,966	6,790,232
1844	317,073	4,616	28,041	22,780	2,492,217	1,993,895	3,360,690	724,326	20,661,259	284,380	156,093	8,204,836
1845	307,791	4,773	24,673	23,583	2,219,906	2,405,311	2,479,478	1,006,970	23,831,017	174,061	178,995	7,6[illegible]3,118
1846	241,030	3,797	23,036	20,717	1,748,430	1,853,515	2,269,830	939,791	21,809,646	161,798	152,570	6,335,102
1847	236,325	2,913	25,735	16,629	1,708,208	1,784,167	3,679,209	1,219,156	32,612,854	172,799	251,659	6,896,038
1848	196,876	681	25,265	19,911	1,512,366	1,895,785	4,157,266	1,106,261	25,091,510	88,201	178,300	5,733,828
1849	331,809	1,294	32,590	21,896	2,003,595	2,266,959	5,708,025	1,565,745	42,115,401	165,645	199,761	7,342,723

An Account of the Quantities of British Sheep and Lambs' Wool and Woollen Yarn Exported from the United Kingdom in the Year 1849; *specifying the Countries to which they were sent.*

COUNTRIES TO WHICH EXPORTED.	British Sheep and Lambs' Wool.	British Woollen and Worsted Yarn (including Yarn of Wool or Worsted, mixed with other Materials).
	lbs.	lbs.
Russia	..	1,125,032
Sweden	248	10,002
Norway	..	3,317
Denmark	..	17,328
Prussia	..	965
Germany	17,136	5,549,621
Holland	610,486	2,305,513
Belgium	2,066,131	2,012,240
France	8,482,812	304,959
Portugal, Azores, and Madeira	..	5,903
Spain and the Canaries	..	33,507
Gibraltar	5,600	3,488
Italy	..	157,200
Malta	..	205
Turkey	627	500
Western Coast of Africa	..	170
Cape of Good Hope	..	50
East Indies and China	20	3,803
British Settlements in Australia	56	2,103
British Colonies in North America	60	21,130
British West Indies	..	300
Foreign West Indies	..	566
United States of America	17,240	168,485
Mexico and States of South America	..	6,186
The Channel Islands	56	40,447
Total	11,200,472	11,773,020

An Account of the Quantities of Wool of the Alpaca and Llama Tribe Imported into the United Kingdom in the Year 1849; *and of the Quantities Re-exported during the same Period, and the Countries to which they were sent.*

		lbs.
Quantities Imported into the United Kingdom		1,655,300
Quantities Re-exported:—	lbs.	
To Belgium	85,898	
„ France	855	
„ Sweden	33,439	
„ Hanse Towns	5,890	
		126,082

An Account of the Quantity of Mohair (or Goats' Wool) Imported into the United Kingdom in the Year 1849; *and of the Quantity Re-exported during the same period, and the Countries to which they were sent.*

		lbs.
Quantities Imported into the United Kingdom		2,536,030
Quantities Re-exported:—	lbs.	
To Russia	670	
„ Holland	21,340	
„ Belgium	31,679	
„ France	25,976	
„ United States of America	50,480	
		130,145

Statement of the Number of Woollen and Worsted Factories in operation in different Parts of the United Kingdom, with the Engines and their Horse Power, and the Number and Ages of Persons employed therein, in the Year 1839.

	England.		Wales.		Scotland.		Ireland.		United Kingdom.	
Woollen Mills—										
At work . . .	1,029		150		112		31		1,322	
Empty	47		11		5		7		70	
Worsted Mills—										
At work . . .	416		..		..		..		416	
Empty	2		..		..		..		2	
	E.	H. P.	E.	H.P.	E.	H. P.	E.	H. P.	E.	H. P.
Steam Power—										
Woollen	558	10,827	4	26	37	624	5	58	604	16,535
Worsted . . .	284	5,863	..	..	..	..	..	..	284	5,863
Water Power—										
Woollen	778	6,884	159	487	116	1,198	39	523	1,092	9,092
Worsted . . .	115	1,313	..	..	..	..	..	..	115	1,313
PERSONS.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Woollen—										
Under 10 years .	809	619	36	17	24	13	4	..	873	649
10 to 11 „ .	810	624	53	40	32	32	..	..	895	696
11 „ 12 „ .	739	563	56	20	35	24	..	2	830	609
12 „ 13 „ .	796	656	64	43	43	50	..	..	903	749
13 „ 14 „ .	3,575	2,720	179	115	383	522	26	36	4,163	3,333
14 „ 15 „ .	2,407	1,655	64	56	170	284	27	58	2,668	2,053
15 „ 16 „ .	1,640	1,329	58	32	121	211	19	62	1,838	1,634
16 „ 17 „ .	1,223	1,076	29	19	67	169	18	48	1,337	1,312
17 „ 18 „ .	909	794	26	9	55	168	16	51	1,006	1,022
18 „ 19 „ .	931	839	22	15	67	256	19	47	1,039	1,157
19 „ 20 „ .	763	673	13	4	54	135	19	59	849	871
20 „ 21 „ .	781	543	16	6	45	103	16	40	858	692
21 and upwards .	13,752	5,814	340	101	1,452	561	456	207	16,000	6,683
Total . .	29,135	17,905	956	477	2,548	2,528	620	610	33,259	21,520
Worsted—										
Under 10 years .	321	417	..	..	..	..	..	..	321	417
10 to 11 „ .	485	595	..	..	..	..	..	..	485	595
11 „ 12 „ .	503	670	..	..	..	..	..	..	503	670
12 „ 13 „ .	607	936	..	..	..	..	..	..	607	936
13 „ 14 „ .	1,465	2,575	..	..	..	..	..	..	1,465	2,575
14 „ 15 „ .	1,030	2,166	..	..	..	..	..	..	1,030	2,166
15 „ 16 „ .	647	2,023	..	..	..	..	..	..	647	2,023
16 „ 17 „ .	380	1,741	..	..	..	..	..	..	380	1,741
17 „ 18 „ .	231	1,624	..	..	..	..	..	..	231	1,624
18 „ 19 „ .	167	1,750	..	..	..	..	..	..	167	1,750
19 „ 20 „ .	139	1,364	..	..	..	..	..	..	139	1,364
20 „ 21 „ .	141	1,224	..	..	..	..	..	..	141	1,224
21 and upwards .	2,577	5,854	..	..	..	..	..	..	2,577	5,854
Total . .	8,693	22,939	..	..	..	..	..	..	8,693	22,939
Total of persons employed in Woollen and Worsted Factories	37,828	40,844	956	477	2,548	2,528	620	610	41,952	44,459
	78,672		1,433		5,076		1,230		86,411	

It is not possible to measure the progress of this branch of manufacture by means of the export trade, which is of far less magnitude

than the home demand; nor can we arrive at any precise estimate from the quantities of the raw material which have been procured from abroad, since foreign wool has always formed an uncertain proportion of the material used for our cloth manufactures. Neither does the growth of the population of particular towns and districts always furnish a certain criterion for forming a judgment upon the subject, because the manufacture, which was at first spread about in a great many different parts of the kingdom, has at different times diminished or ceased in some places, while it has increased in others, and in general the business has been carried on in districts where other branches of industry have been simultaneously prosecuted; so that it is not possible always to determine the degree in which the increase of manufacturing hands is occasioned by one particular branch or by another.

The total number of woollen factories in 1839, and of the persons employed in them, who form, however, only a small part of those engaged in the woollen manufacture, are shown in the preceding table, compiled from returns made by the Inspectors of Factories.

The total number of woollen and worsted factories at work in 1835 was returned by the Inspectors as being 1313, showing an increase of 132, or 10 per cent. in four years. The total number of persons employed by them in 1835 was 71,274, and having been 86,411 in 1839, the increase in that short interval was 15,137, or more than 20 per cent.

We have not any detail of the quantity of woollen goods exported earlier than 1815, and without such data the simple statement of value affords no precise knowledge of the extent of shipments of goods produced from a material, the qualities of which are so various, and the prices of which have so greatly fluctuated. There is not any reason for supposing that the number of sheep kept in this country has fallen off in proportion to the growth of the population; but it is, on the contrary, believed that the great increase of town population has caused a larger proportionate consumption of mutton than formerly, which consumption has been met through the introduction of the turnip husbandry; and if there be any foundation for such belief, it follows that the quantity of wool annually furnished by our own flocks must have increased, while we know that a very great augmentation of our imports of foreign wool has taken place. The quantity imported, in each year of the present century, has been as follows:—

Years.	Pounds.	Years.	Pounds.	Years.	Pounds.
1801	7,371,774	1809	6,758,954	1817	14,061,722
1802	7,669,798	1810	10,914,137	1818	24,749,570
1803	5,804,740	1811	4,732,782	1819	16,100,970
1804	7,921,595	1812	6,983,575	1820	9,775,605
1805	8,069,793	1813 records destroyed by fire.		1821	16,622,567
1806	6,775,636	1814	15,492,311	1822	19,058,080
1807	11,487,050	1815	13,640,375	1823	19,366,725
1808	2,284,482	1816	7,517,886	1824	22,564,485

Years.	Pounds.	Years.	Pounds.	Years.	Pounds.
1825	43,816,966	1834	46,455,232	1842	45,881,630
1826	15,989,112	1835	42,172,532	1843	49,243,003
1827	29,115,341	1836	64,230,977	1844	65,713,761
1828	30,236,059	1837	48,379,708	1845	76,813,855
1829	21,516,649	1838	52,594,355	1846	65,255,462
1830	32,305,314	1839	57,379,923	1847	62,592,598
1831	31,652,029	1840	49,436,284	1848	70,864,847
1832	28,142,489	1841	56,170,974	1849	76,768,647
1833	38,046,087				

In consequence of a continual depression in the price of British wool, a Committee of the House of Commons was appointed, in 1828, to inquire into the state of the woollen trade, and a considerable amount of evidence on the subject was collected on that occasion. The estimates offered to the Committee were indeed without the sanction of any certain authority; but as their general accuracy seems to have been acknowledged at the time by many persons practically experienced in this branch of trade, we are justified in availing ourselves of them, in the absence of more precise data.

On that occasion a statement made by Mr. Luccock was produced, giving the estimated numbers of sheep kept in England and Wales in the year 1800, and distinguishing the long-woolled from the short-woolled flocks. According to this statement the number of sheep in that year amounted to 19,007,607, and of these the far greater proportion, namely, 14,854,299, were short-woolled sheep. The quantity of wool yielded by these animals was estimated at 393,236 packs of 240 pounds, or 94,376,640 pounds in all, being a very small fraction under five pounds for each fleece, taking one with another. Mr. Hubbard, a gentleman of great experience in the wool trade, by whom Mr. Luccock's table was brought forward in 1828, then expressed his belief that the actual number of sheep in England and Wales had increased one-fifth since 1800; that the long-woolled sheep had become more numerous than the short-woolled; and that the weight of the fleece had so much increased, that, one with another, each sheep yielded more than 5½ pounds of wool.

Assuming these estimates to be correct, it appears that in 1800 the quantity of wool available for manufacturing purposes, exclusive of that produced in Scotland and Ireland, was—

	Packs.	Pounds.
From flocks in England and Wales	393,236, or	94,376,640
Foreign wool imported		8,609,368
Together		102,906,008

If between 1800 and 1828 the number of sheep had increased one-fifth, it is probable that by this time the increase has at least reached to one-third, and that the whole number in England and Wales now amounts to 25,343,476. Assuming further, that the average weight of each fleece is further increased in the degree estimated by Mr. Hubbard,

the whole quantity of wool now applicable to manufacturing purposes must be—

	Packs.	Pounds.
From flocks in England and Wales	607,187, or	145,724,880
Foreign wool imported, 1849		76,768,647
Together		222,493,527

Showing an increase since 1800 of more than 115 per cent.

During this interval the manufacture has increased in a considerable degree in Yorkshire. That branch of it which depends on long or combing wool—of which the quality in England is so superior to that of every other country, that we may be said to possess a natural monopoly of it—is chiefly prosecuted in and near the town of Bradford in that county. The extension of the stuff and worsted trade of this country may fairly be estimated from the increase of the population in the parish of Bradford, which is stated in the Government returns to have been as under:—

In the Year	1801	29,704
„	1811	36,358
„	1821	52,954
„	1831	76,996
„	1841	105,257

Since 1831, the town of Bradford has been very greatly enlarged. In one year alone (1833), 700 new houses were built and occupied, and the number of factories has been increased in proportion.

During the early part of the present century, the manufacture of bombazeens at Norwich suffered a very great depression, which was shown by the trifling increase in the population between 1801 and 1811. After the latter year this branch of trade recovered in a remarkable degree, and with its prosperity the population experienced a rapid increase, the difference in numbers between 1811 and 1821 having been 38 per cent., and between 1821 and 1831, 21½ per cent. The increase between 1831 and 1841 amounted to little more than 3½ per cent. For reasons already given, this method of showing the extension of other branches of the woollen manufacture is not equally available; but when it is seen, that since the beginning of the century the population of the principal clothing towns in Yorkshire has been far more than doubled, this fact must be taken as a strong corroboration of the opinion already expressed as to the general prosperity of the manufacture.

		1801	1841
Population of	Halifax . . .	63,434	130,743
„	Huddersfield .	14,848	38,454
„	Leeds	53,162	152,054
„	Rochdale . . .	39,766	84,718
		171,210	405,969

The increase in the population of the whole West Riding of Yorkshire, the chief seat of the woollen manufacture in England, was, between 1801 and 1841, from 563,953, to 1,154,101, or 104 per cent.

In the interval between the periods here contrasted the woollen manufacture has undergone various changes. One of the greatest of these changes has resulted from improvements in the breed of English sheep, in which it has been more the object to obtain a greater weight of carcass than to improve or preserve the quality of the wool. The fleece, as we have seen, has become heavier, but, at the same time, the wool of the short-woolled sheep is coarser; and for the production of cloth of similar quality to that which thirty years ago was produced wholly from British wool, it is now necessary to use an admixture of imported wool. This remark applies to South Down sheep, the wool of which is used for baizes, flannel, blanketing, druggets, and low-priced cloths. The proportion of these sheep, however, has much diminished relatively to the number of sheep yielding long or combing-wool, and which is employed for the manufacture of stuffs and worsted fabrics, a branch of business which has taken a very important stride, and is still increasing in a very rapid manner.

A curious trade has of late years been introduced, that of importing foreign woollen rags into England for the purpose of re-manufacture. These are assorted, torn up, and mixed with English, or more commonly with Scotch wool of low quality, and inferior cloth is made from the mixture at a price sufficiently moderate to command a sale for exportation.

By this means a market is obtained for wool of a very low quality, which might otherwise be left on the hands of the growers.

The best blankets are made from unmixed British wool, and this trade has experienced a very great increase. The town and parish of Dewsbury, at which carpets are made, has increased in population, between 1801 and 1841, from 11,752 to 23,806, or 102 per cent.

The great and continually increasing cheapness of cotton manufactured goods has caused them in a great degree to supersede the lower qualities of woollen cloths among the labouring population of England; and as we are less able to rival continental manufacturers of woollens than to maintain our superiority in the spinning and weaving of cotton, it is not probable that, unless new markets shall be opened, any very rapid extension will in future be given to our manufacture of woollen cloths. As regards worsted and stuff goods the case is different; and it has of late been an increasingly prevailing opinion among the more intelligent persons engaged in that branch, that our present amount of trade in those goods is trifling compared to what it is likely to become hereafter.

The rise and progress of the cotton manufacture in Great Britain

form perhaps the most extraordinary page in the annals of human industry. It is not necessary on this occasion to trace its early growth, or to describe the mechanical inventions by means of which it has come to exercise so powerful an influence upon the destinies of the civilized world. It will be sufficient here to describe, by their effects, the gigantic strides which have been made in the cotton manufacture since the beginning of this century, referring those persons who wish for earlier or more detailed accounts to the Memoir of Mr. Kennedy,* the History of Mr. Baines,† and the Essay of Dr. Ure.‡

In the year 1800, the quantity of cotton imported for use into the United Kingdom was 56,010,732 pounds, having been only 31,447,605 pounds in 1790, and 17,992,882 pounds in 1785. The total value of manufactured cotton goods exported in 1800 was, 5,406,501*l.*, having been 1,662,369*l.* in 1790. At the earliest of these two dates, Sir Richard Arkwright's inventions had very recently been thrown open to the public by the setting aside of his patent in the Court of King's Bench. The first steam-engine constructed for a cotton-mill was made by Mr. Watt in 1785, and put to use at Papplewick in Nottinghamshire; it was four years later that the application of steam power to the same purpose was first made in Manchester. In the year 1800, the number of such engines in that town had increased to 32, the aggregate power of which was estimated as equal to the labour of 430 horses. This increase shows that a great impulse had been given to the manufacture, which already was considered to be a thing of great national importance. If, however, we measure its amount at that time in comparison with the extension which it has since received, the cotton trade of 1800 dwindles into insignificance. At that time the application of the improved machinery was confined to the production of yarn; for although Dr. Cartwright's power-loom was invented as early as 1787, the first practical application of his machine was not made until 1801, when a weaving factory was erected by Mr. Monteith, at Pollockshaws, near Glasgow, and furnished with 200 self-acting looms. Nor was it until after several years had elapsed, that the imperfections and difficulties attendant upon this new speculation were overcome, and that this interesting invention was rendered a profitable instrument in the hands of that enterprising gentleman.

The progress of the manufacture since that time may be seen by inspection of the following table, in which are stated the quantity of cotton annually worked up in the kingdom, and the value of that part of the resulting manufactured goods which was exported:—

* Paper on the Rise and Progress of the Cotton Trade, in Vol. III. of the Memoirs of the Manchester Literary and Philosophical Society. 1819.

† History of the Cotton Manufacture in Great Britain, by E. Baines, Jun., Esq. 1835.

‡ The Philosophy of Manufactures, by Dr. Ure. 1835.

Years.	Quantity of Cotton Wool taken for consumption.	Value of Goods Exported.	
		Official.	Real or Declared.
	lbs.	£.	£.
1801	54,203,433	7,050,809	..
1802	56,615,120	7,624,505	..
1803	52,251,231	7,081,441	..
1804	61,364,158	8,746,772	..
1805	58,878,163	9,534,465	..
1806	57,524,416	10,489,049	..
1807	72,748,363	10,309,765	..
1808	41,961,115	12,986,006	..
1809	88,461,177	19,445,966	..
1810	123,701,826	18,951,994	..
1811	90,309,668	12,013,149	..
1812	61,285,024	16,517,690	..
1813	50,966,000	Records destroyed by fire.	
1814	53,777,802	17,655,378	20,033,132
1815	92,525,951	22,289,645	20,620,956
1816	86,815,021	17,564,461	15,577,392
1817	116,757,526	21,259,224	16,012,001
1818	162,122,705	22,589,130	18,767,517
1819	133,116,851	18,282,292	14,699,912
1820	152,829,633	22,531,079	16,516,748
1821	137,401,549	22,541,615	16,093,787
1822	143,428,127	26,911,043	17,218,724
1823	186,311,070	26,544,770	16,326,604
1824	141,038,743	30,155,901	18,452,987
1825	202,546,869	29,495,281	18,359,526
1826	162,889,012	25,194,270	14,093,369
1827	249,804,396	33,182,898	17,637,165
1828	208,987,744	33,467,417	17,244,417
1829	204,097,037	37,269,432	17,535,006
1830	269,616,640	41,050,969	19,428,664
1831	273,249,653	39,357,075	17,257,204
1832	259,412,463	43,786,255	17,398,392
1833	293,682,976	46,337,210	18,486,400
1834	308,602,401	51,069,140	20,513,585
1835	333,043,464	52,333,278	22,128,304
1836	363,684,232	58,578,442	24,632,058
1837	368,445,035	51,130,290	20,597,123
1838	455,036,755	64,812,528	24,147,726
1839	352,000,277	67,917,021	24,550,376
1840	528,142,743	73,152,251	24,668,618
1841	437,093,631	69,798,131	23,499,478
1842	473,976,400	68,684,891	21,674,598
1843	581,303,105	82,189,599	23,447,971
1844	554,196,602	91,039,574	25,805,348
1845	679,063,621	93,665,834	26,119,331
1846	401,925,542	93,685,819	25,599,826
1847	399,753,279	82,237,190	23,333,225
1848	639,000,371	93,185,104	22,681,200
1849	775,469,008	112,416,294	26,771,432

The quantity taken for consumption previous to 1820 has been found by deducting the quantity exported from the quantity imported in each year. By this method, although the quantity stated in individual years may not be correct, as the stock in hand at the end of each year will of course vary from the stock in hand at the beginning, yet by taking a series of years, one with another, the quantities may be relied on as being substantially right. From 1820 downwards, the quantities stated are those actually taken by the manufacturers in the course of each year.

The circumstance that will first strike any person who consults the

foregoing table, is the comparative sluggishness of the trade from the beginning of the century until the return of peace. It has been seen that the effect of the general adoption of Arkwright's invention for spinning was to treble the manufacture in 15 years. At this point it may almost be said to have stopped, and in fact the quantity of raw material manufactured in each of the last two years of the war was smaller than that consumed in 1801. No sooner had peace returned, however, than new life was infused into the trade. In five years the quantity of cotton spun was trebled; in another five years it was four times what it had been in the last year of war; at the expiration of another period of equal duration, more than five times that quantity passed through the manufacturers' hands, and the same rate of progression has been since continued, the quantity used in 1835 having been fully six and a half times greater than that used in 1813, while in the following nine years there has been an increase of two-thirds, or 66 per cent., upon the quantity of 1835, so that our manufacturers have worked up eleven times the quantity spun in 1813.

The progress of the export trade in cotton goods has been more regular throughout the period embraced in the table. Judging from the "official value," under which every yard or pound is estimated at an unvarying rate, it appears that the quantity of these goods exported was nearly three times as great at the close of the war as it had been at the beginning of the century—a fact which seems to prove that the capability of the population of this country to command the purchase of this the cheapest kind of clothing, must have diminished, the increased exports having left a much smaller quantity for the use of a population increased in the meanwhile by more than two millions of souls.

It is only of late years that the accounts have been so given as to show the actual quantities of the different descriptions of cotton goods exported. The following statement contains the summary of the shipments in each year from 1820 to 1849 :—*See* page 180.

If the first and last lines of this table are compared, it will be seen, that while the number of yards exported in 1849 is greater by 430 per cent. than the number exported in 1820, the increase in the declared value is only 42 per cent; the average price per yard, which in 1820 was 12¾*d.*, having fallen in 1849 to 3¼*d.* The quantity of twist exported has increased during the same period in the proportion of 6 to 1, while the increase in the declared value is only in the proportion of about 5 to 2. The average price of twist in 1820 was 2*s.* 5½*d.*, and in 1849 was little more than 10¾*d.* per pound. If, in addition to these values, we take account of the reduction that has occurred in the price of raw cotton, we may be enabled to form some judgment as to the economy which has been introduced into the process of manufacture during the last 30 years, and be besides able to apportion the degrees of that economy

Statement of the Quantity and Declared Value of British Cotton Manufactured Goods exported from the United Kingdom, distinguishing the description of Goods, in each year from 1820 to 1849.

Years.	White or Plain Cottons.		Printed or Dyed Cottons.		Hosiery and Small Wares.	Twist and Yarn.		Total Declared Value.
	Yards.	Declared Value.	Yards.	Declared Value.	Declared Value.	Pounds.	Declared Value.	
		£.		£.	£.		£.	£.
1820	113,689,486	5,451,024	134,688,144	7,742,505	406,580	23,032,325	2,826,639	16,516,748
1821	122,921,692	5,713,722	146,412,002	7,454,243	619,999	21,526,369	2,305,823	16,093,787
1822	151,162,131	6,317,973	150,999,157	7,480,634	722,535	26,595,468	2,697,382	17,218,724
1823	152,184,705	5,884,935	149,631,387	7,095,709	720,014	27,378,986	2,625,946	16,326,604
1824	170,091,384	6,437,817	174,559,749	8,010,432	869,336	33,605,510	3,135,346	18,452,987
1825	158,039,786	6,027,892	178,426,912	8,205,117	919,787	32,641,604	3,206,729	18,359,526
1826	138,159,783	4,477,942	128,897,111	5,388,592	735,497	42,189,661	3,491,338	14,093,369
1827	183,940,186	5,762,576	181,544,618	7,184,459	1,144,592	44,878,774	3,545,578	17,637,165
1828	189,475,956	5,623,802	173,852,475	6,859,447	1,165,763	50,305,751	3,595,405	17,244,417
1829	222,504,344	5,853,625	180,012,152	6,662,623	1,041,885	61,441,251	3,976,874	17,535,006
1830	244,799,032	6,562,397	199,799,466	7,557,373	1,175,153	64,645,342	4,133,741	19,428,664
1831	239,191,261	6,065,478	182,194,052	6,098,035	1,118,672	63,821,440	3,975,019	17,257,204
1832	259,493,096	5,854,924	201,552,407	5,645,706	1,175,003	75,667,150	4,722,759	17,398,392
1833	259,519,864	5,847,840	236,832,232	6,603,220	1,331,317	70,626,161	4,704,024	18,486,401
1834	283,950,158	6,514,173	271,755,651	7,613,179	1,175,219	76,478,468	5,211,015	20,513,586
1835	277,704,525	6,910,506	279,811,176	8,270,925	1,240,284	83,214,198	5,706,589	22,128,304
1836	324,467,179	7,985,349	313,260,448	9,197,818	1,328,525	88,191,046	6,120,366	24,632,058
1837	286,164,256	6,085,789	245,209,407	6,642,200	912,192	103,455,138	6,955,942	20,596,123
1838	363,357,845	7,203,831	326,719,777	8,260,902	1,161,124	114,596,602	7,431,869	24,147,726
1839	380,168,656	7,535,799	351,281,467	8,842,646	1,313,737	105,686,442	6,858,193	24,550,375
1840	433,114,373	7,803,772	357,517,624	8,498,448	1,265,090	118,470,223	7,101,308	24,668,618
1841	421,884,732	7,213,075	329,240,892	7,772,735	1,246,700	123,226,519	7,266,968	23,499,478
1842	435,519,311	6,590,945	298,579,498	6,296,275	1,020,664	137,466,892	7,771,464	21,679,348
1843	562,575,205	8,024,287	356,065,000	7,144,177	1,085,536	140,321,176	7,193,971	23,447,971
1844	623,249,423	9,346,865	403,421,400	8,265,281	1,204,618	138,540,079	6,988,584	25,805,348
1845	678,415,780	9,661,014	413,270,289	8,368,794	1,126,288	135,144,865	6,963,235	26,119,331
1846	697,809,454	9,354,268	367,631,135	7,347,364	1,016,146	161,892,750	7,882,048	25,599,826
1847	541,143,488	8,057,815	401,396,672	8,149,288	1,168,142	120,270,741	5,957,980	23,333,225
1848	651,087,785	7,929,341	445,664,038	7,781,516	1,042,512	135,831,162	5,927,831	22,681,200
1849	795,112,525	9,457,721	542,423,591	9,337,243	1,276,082	149,502,281	6,704,089	26,775,135

which appertain to the spinning and to the weaving branches of the manufacture respectively. It is necessary, however, that for this pur- [redacted] the average qualities of both cloths and twist should have been the

...easonable to suppose might be the
...s, and the quantities shipped
... appears to amount to

...arn, so far as the
...quantities exported
...ws :—

...d Cotton Manufactures, and United Kingdom, in each year*

		Twist or Yarn. d.
		15·346
	5	14·948
	22	14·979
	691	15·984
	7·723	16·352
	7·094	16·459
	7·048	16·656
	6·501	16·137
	6·087	15·564
	6·041	15·573
	5·705	14·386
	5·666	14·153
	5·061	13·568
5·423	4·815	13·394
5·487	4·917	12·107
3·417	4·860	12·365
3·217	4·796	11·685
3·573	4·872	11·889
2·923	4·190	10·474
2·854	4·131	10·762

...atement, which is taken from Mr. Dugald Bannatyne's ...on manufacture inserted in the "Encyclopædia Britan-... a very striking light the reduction that has been effected in the cost of spinning.

...ces of Cotton-yarn, 100 hanks to the lb., in the following years :—

	s.	d.		Years.	s.	d.	
17[illegible]	38	0	per lb.	1799	10	11	per lb.
17[illegible]	38	0	„	1800	9	5	„
1788	35	0	„	1801	8	9	„
1789	34	0	„	1802	8	4	„
1790	30	0	„	1803	8	4	„
1791	29	9	„	1804	7	10	„
1792	16	1	„	1805	7	10	„
1793	15	1	„	1806	7	2	„
1794	15	1	„	1807	6	9	„
1795*	19	0	„	After many fluctuations in			
1796	19	0	„	1829	3	2	„
1797	19	0	„	1832	2	11	„
1798†	9	10	„				

* Spun from Bourbon cotton.

† Spun from Sea Island cotton.

The variations in price of cotton-yarn of various degrees of fineness in each year, from 1833 to 1844 have been as follows :—

YEARS.	Yarn No. 30. Price per lb.		Yarn No. 100. Price per lb.		Yarn No. 170. Price per lb.	
	Cotton.	Yarn.	Cotton.	Yarn.	Cotton.	Yarn.
Dec.	*d.*	*d.*	*d.*	*s. d.*	*d.*	*s. d.*
1833	8½	12¼	14	3 3	19	7 10
1834	9⅝	15⅛	17	3 6	22	7 10
1835	9¼	14½	17	4 3	28	8 9
1836	10	15½	20	5 6	31	10 4
1837	8	12¾	17	3 6	25	8 6
1838	6¾	12	16	3 9	29	9 6
1839	6½	11	14	4 1	27	8 4
1840	5⅜	10¼	13	3 7	21	7 7
1841	5½	9⅜	12	3 0	18	7 1
1842	5	8¾	10	2 9	17	6 8
1843	4⅞	9	11	2 11	17	6 9
1844	4⅝	9¼	11	2 11	17	6 9

This subject has had further light thrown upon it by the inquiries of the Factory Commissioners, from whose report the following tables have been extracted :—

Average Price of Cotton, compared with Twist, at different Periods during the present Century.

PERIODS.	Cotton, per lb.	Twist Sold, per lb.	Average Number.	Difference.
	d.	*d.*		*d.*
From Dec., 1802 to Dec., 1805	19·6	39·8	25·9	20·2
„ „ 1805 „ „ 1806	19·08	36·18	25·	17·1
„ „ 1806 „ „ 1807	21·54	36·70	25·78	15·16
„ „ 1807 „ „ 1808	24·83	38·	24·61	13·17
„ „ 1808 „ „ 1809	26·83	41·91	24·37	15·08
„ July, 1809 „ „ 1809	20·73	37·01	24·69	16·28
„ Dec., 1809 „ July, 1810	20·93	40·79	22·97	19·86
„ July, 1810 „ Dec., 1810	19·75	38·51	22·96	18·76
„ Dec., 1810 „ July, 1811	17·96	34·40	23·00	16·44
„ July, 1811 „ Dec., 1811	17·43	28·71	23·59	11·28
„ Dec., 1811 „ July, 1812	17·81	29·72	23·15	11·91
„ July, 1812 „ Dec., 1812	18·24	29·09	24·45	10·85
„ Dec., 1812 „ July, 1813	24·75	35·46	25·22	10·71
„ July, 1813 „ Dec., 1813	25·12	35·08	25·52	9·96
„ Dec., 1813 „ July, 1814	33·52	46·92	25·06	13·40
„ July, 1814 „ Dec., 1814	31·67	45·40	26·	13·73
„ Dec., 1814 „ July, 1815	25·72	37·48	23·65	11·76
„ July, 1815 „ Dec., 1815	26·53	38·44	25·	11·91
„ Dec., 1815 „ July, 1816	20·47	37·74	25·1	17·27
„ July, 1816 „ Dec., 1816	20·73	33·8	25·3	13·07
„ Dec., 1816 „ July, 1817	22·3	34·65	25·7	12·35
„ July, 1817 „ Dec., 1817	20·44	33·6	25·46	13·16
„ Dec., 1817 „ July, 1818	20·46	34·55	25·6	14·09
„ July, 1818 „ Dec., 1818	21·13	32·95	23·4	11·82
„ Dec., 1818 „ July, 1819	14·49	30·85	24·53	16·36
„ July, 1819 „ Dec., 1819	13·65	27·53	24·95	13·88
„ Dec., 1819 „ July, 1820	14·44	26·03	25·70	11·59
„ July, 1820 „ Dec., 1820	11·62	21·40	25·18	9·78
„ Dec., 1820 „ July, 1821	9·82	20·11	25·73	10·29
„ July, 1821 „ Dec., 1821	9·91	19·45	25·53	9·54
„ Dec., 1821 „ July, 1822	9·23	19·27	25·54	10·04
„ July, 1822 „ Dec., 1822	8·34	19·14	25·6	10·8
„ Dec., 1822 „ July, 1823	7·8	19·23	25·6	11·43
„ July, 1823 „ Dec., 1823	8·24	19·63	25·34	11·39

Average Price of Cotton, &c.—continued.

PERIODS.	Cotton, per lb.	Twist Sold, per lb.	Average Number.	Difference.
	d.	*d.*		*d.*
From Dec., 1823 to July, 1824	8·81	19·41	25·9	10·6
„ July, 1824 „ Dec., 1824	8·78	19·09	26·1	10·31
„ Dec., 1824 „ July, 1825	14·	22·34	26·2	8·26
„ July, 1825 „ Dec., 1825	13·06	19·11	29·1	6·05
„ Dec., 1825 „ July, 1826	7·6	16·5	27·73	8·9
„ July, 1826 „ Dec., 1826	6·82	15·17	30·	8·35
„ Dec., 1826 „ July, 1827	6·95	14·97	30·95	8·02
„ July, 1827 „ Dec., 1827	7·34	14·77	30·	7·43
„ Dec., 1827 „ July, 1828	6·26	13·	27·41	6·74
„ July, 1828 „ Dec., 1828	6·64	13·3	28·33	6·66
„ Dec., 1828 „ July, 1829	6·23	12·96	28·23	6·73
„ July, 1829 „ Dec., 1829	6·34	13·43	29·69	7·09
„ Dec., 1829 „ July, 1830	7·01	13·28	27·85	6·27
„ July, 1830 „ Dec., 1830	6·82	12·72	26·77	5·90
„ Dec., 1830 „ July, 1831	6·65	12·82	28·58	6·17
„ July, 1831 „ Dec., 1831	6·82	12·37	27·40	5·55
„ Dec., 1831 „ July, 1832	6·97	12·76	29·43	5·79
„ July, 1832 „ Dec., 1832	7·24	12·61	29·52	5·37

Comparative Cost of Cotton Yarn in 1812 *and* 1830.

Hanks per Day, per Spindle.			Price of Cotton and Waste, per lb.		Labour, per lb.		Cost per lb.	
No.	1812	1830	1812	1830	1812	1830	1812	1830
			s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
40	2·	2·75	1 6	0 7	1 0	0 7¼	2 6	1 2¼
60	1·5	2·5	2 0	0 10	1 6	1 0¾	3 6	1 10¾
80	1·5	2·	2 2	0 11½	2 2	1 7¾	4 4	2 6¾
100	1·4	1·8	2 4	1 1	2 10	2 2¾	5 2	3 3¾
120	1·25	1·65	2 6	1 4	3 6	2 8	6 0	4 0
150	1·	1·33	2 10	1 8	6 6	4 11	9 4	6 7
200	·75	·90	3 4	3 0	16 8	11 6	20 0	14 6
250	·5	·5	4 0	3 8	31 0	24 6	35 0	28 2

The following statement of the advantages gained by the employment of the power-loom is given by Mr. Baines, on the authority of a manufacturer:—

"A very good *hand-weaver*, 25 or 30 years of age, will weave *two* pieces of 9-8ths shirting per week, each twenty-four yards long, containing 100 shoots of weft in an inch; the reed of the cloth being a forty-four Bolton count, and the warp and weft forty hanks to the pound.

"In 1823, a *steam-loom weaver*, about 15 years of age, attending two looms, could weave *seven* similar pieces in a week.

"In 1826, a steam-loom weaver, about 15 years of age, attending to four looms, could weave *twelve* similar pieces in a week; some could weave *fifteen* pieces.

"In 1833, a steam-loom weaver, from 15 to 20 years of age, assisted by a girl about 12 years of age, attending to four looms, could weave *eighteen* similar pieces in a week; some can weave *twenty* pieces."

The progressive improvements thus given by Mr. Baines have continued to the present time; in 1845 a steam-loom weaver about 15 years of age, attending to two looms, could weave 11 pieces of the same cloth; and a steam-loom weaver, 16 to 20 years of age, assisted by a girl about 14 years of age, attending to four looms, could weave 22 similar pieces in a week.

The following table will show the effect which these successive improvements had in diminishing the price of cotton cloths; the same article—a piece of calico known in the trade as 72⅞—is given throughout.

Years.	Prices paid for Weaving.	Prices paid for Cottons.	Selling Price of 72⅞ Calicoes.	Earnings of the Weavers per Week.	Years.	Prices paid for Weaving.	Prices paid for Cottons.	Selling Price of 72⅞ Calicoes.	Earnings of the Weavers per Week.
	s. d.	*s. d.*	£. *s. d.*	*s. d.*		*s. d.*	*s. d.*	*s. d.*	*s. d.*
1814	3 0	2 6	1 8 0		1829	1 4	0 6¾	8 9	
1815	3 0	1 8	1 5 6		1830	1 4	0 6¾	8 3	
1816	2 6	1 8	1 2 0	14 0	1831	1 4	0 6¾	8 9	12 0
1817	2 6	1 10	1 0 7½		1832	1 4	0 7½	8 0	
1818	2 6	1 10	1 1 1½		1833	1 4	0 9½	8 6	
1819	2 0	1 2	17 8		1834	1 4	0 10	9 0	
1820	2 0	1 1	15 9½		1835	1 4	0 10	9 9	12 6
1821	1 8	0 11	15 8½	14 0	1836	1 4	0 9½	10 0	
1822	1 8	0 10	14 6½		1837	1 4	0 7	8 3	
1823	1 8	0 10½	14 5		1838	1 3	0 7	8 3	11 0
1824	1 8	0 10½	14 0		1839	1 3	0 7½	8 0	
			14 0		1840	1 3	0 6	7 3	
1825	1 8	1 2	to	13 0	1841	1 2½	0 6½	7 0	9 9*
			18 6		1842	1 1½	0 5½	5 9	
1826	1 6	0 8	10 6		1843	1 1½	0 4½	5 9	
1827	1 6	0 7½	10 3		1844	1 1½	0 4½	6 9	11 0
1828	1 4	0 7	10 2						

The reductions made previously to the time embraced by the foregoing table are shown by the following list, which was given in to the House of Commons in 1812, on occasion of the inquiry then made into the effects of the Orders in Council, issued in 1808, in retaliation of the Berlin and Milan decrees of Napoleon.

Prices paid for Weaving Twenty-four Yards of Cambric at Stockport, in Cheshire.

Years.	*s.*	Years.	*s.*	Years.	*s.*
1802	25	1806	15	1810	12
1803	19	1807	13	1811	10
1804	15	1808	12	1812	10
1805	18	1809	13		

The quantity of twenty-four yards above stated is as much as a good workman will produce of this description of cloth in a week. The low wages paid for making the same in the latter years, when every article of provisions was excessively high in price, and when, even at these insufficient rates, but little employment was to be had, caused great and wide-spread misery among the manufacturing population.

* Short time, and six weeks "turn out."

The following statement of the progress of the power-loom is taken from Mr. Baines's "History of the Cotton Manufacture:"—

"In 1813 there were not more than 2400 power-looms in use; yet this was enough to alarm the hand-loom weavers, who, attributing to machinery the distress caused by the Orders in Council and the American war, made riotous opposition to all new machines, and broke the power-looms set up at West Houghton, Middleton, and other places. Nevertheless, the great value of the power-loom having now been proved, it was adopted by many manufacturers, both in England and Scotland: and it will, no doubt, in time supersede the hand-loom. The rapidity with which the power-loom is coming into use is proved by the following table, the particulars of which were stated by R. A. Slaney, Esq., M.P., in the House of Commons, on the 13th of May, 1830, and which rest on the authority of Mr. Kennedy:—

"*Number of Power-Looms in England and Scotland.*

	In 1820.	In 1829.
In England	12,150	45,500
In Scotland	2,000	10,000
Total	14,150	55,500

"This number would appear to have been somewhat underrated. Dr. Cleland states that, in 1828, the Glasgow manufacturers had in operation, in that city and elsewhere, 10,783 steam-looms, and 2060 more in preparation: total 12,843. He supposes there was an increase of 10 per cent. between 1828 and 1832, which would make the number 14,127 in the latter year. This is independent of other parts of Scotland, unconnected with Glasgow. In 1833, evidence was given before the Commons' Committee on Manufactures, Commerce, &c., that, in the whole of Scotland, there were 14,970 steam-looms. We may therefore safely take the number of power-looms in Scotland at the present time (1835) at 15,000.

"In England, the great increase took place during the years of speculation, 1824 and 1825; and comparatively few power-loom mills were built betwixt that time and 1832. But in 1832, 1833, and the former part of 1834, the trade has been rapidly extending; many mills have been built, and many spinners have added power-loom factories to their spinning-mills.

"Mr. W. R. Greg, an extensive spinner and manufacturer at Bury, gave evidence before the Select Committee of the House of Commons on Manufactures, &c., in August, 1833, that the number of power-looms had very materially increased of late years in and about Bury, and also at Stockport, Bolton, Ashton, and in Cheshire. He stated that he did not know any person who was then building a spinning-mill without the addition of a power-loom mill.

"Mr. Kennedy's estimate for 1829 was probably too low for England, as well as for Scotland: at all events, there are good reasons for believing that there must now be 85,000 power-looms in England. This conclusion is deduced from a computation of the number of workmen employed in power-loom weaving, founded on actual returns, obtained by the Factory Commissioners from the cotton-mills in Lancashire and Cheshire. It is also supported by the calculations of Mr. Bannatyne, and Messrs. Samuel Greg and Co., the spinners and manufacturers of Bury. At the present time (1835), the machine-makers of Lancashire are making power-looms with the greatest rapidity, and they cannot be made sufficiently fast to meet the demands of the manufacturers. The result we have arrived at is as follows:—

Estimated Number of Power-Looms in Great Britain in 1833.

In England	85,000
In Scotland	15,000
Total . .	100,000

"While the number of power-looms has been multiplying so fast, the hand-looms employed in the cotton-manufacture are believed not to have diminished between 1820 and 1834, but rather to have increased. In the former year they were estimated by Mr. Kennedy at 240,000. In 1833, Mr. Grimshaw, a spinner and manufacturer of Colne, gave his opinion before the Committee of the Commons on Manufactures, &c., that the number of hand-loom cotton weavers in the Kingdom was about 250,000; whilst Mr. George Smith, manufacturer, of Manchester, estimated them at only 200,000. In the year 1834, several intelligent workmen and manufacturers from Glasgow gave evidence to the Commons' Committee 'On Hand-loom Weavers,' that there were 45,000 or 50,000 hand-loom cotton-weavers in Scotland alone."

Since the publication of Mr. Baines's volume, returns have been made by the Inspectors of Factories of the number of power-looms actually in use in factories at the end of the year 1835, in each county of Great Britain and Ireland. From these returns, an abstract of which is given in this chapter, it appears that the total number of self-acting looms in the United Kingdom employed for weaving cotton, was at that time 109,626; thus proving the accuracy of the foregoing calculations.

It does not appear likely that any considerable addition will in future be made to the number of hand-looms employed for cotton-weaving; whereas the machine-makers of Lancashire have at different periods been engaged to the full extent of their power in constructing power-looms; so that their number increases continually. We should be wrong, however, if we inferred that hand-looms are lying unemployed. Power-looms have not hitherto been found generally applicable to the produc-

tion of fine cloths, or what are called fancy goods. The demand for these fluctuates considerably, and is at times greater than can be readily supplied. In the Report of the Select Committee of the House of Commons, appointed in the summer of 1834, to examine the numerous petitions presented by the hand-loom weavers, we find a statement given in evidence by Mr. Makin, a manufacturer of Bolton, to the following effect:—"I know that there is at present no surplus of weavers. I go nine miles from the seat of my manufacture on one side to get weavers, and I am putting out work nine miles across the country in another part to get weavers; and if I knew where I could get a certain description of weavers, by going nine miles another way, I should go. But it is a strange fact, that, whilst the demand for hand-loom cloth is greater than the production, yet the wages do not rise; and in about two months from this time (July, 1834) I know, from the experience of past years, that there will be demands for thousands of weavers more than can be obtained."

The fact stated by Mr. Makin, although seemingly at variance with the ordinary law of demand and supply, may admit of this solution;—that, when they can be furnished within a certain limited price, hand-loom cloths meet with an extensive sale; but that, when that limit is passed, other goods of home production, or similar goods of foreign make, come into successful competition with them; so that the manufacturers are not enabled, by the most extensive demand, to increase the rate of wages paid to the weavers.

A considerable amount of very valuable and authentic information respecting the amount of labour employed in the spinning and weaving factories of this kingdom, was embodied in their reports by the Commissioners appointed to collect information as to the employment of children in factories, and subsequently by the gentlemen appointed as Inspectors, under the Act of 1833, for regulating the labour of children.

The following calculation, made by Mr. Stanway, under the direction of Mr. Cowell, one of the Commissioners, and inserted in the Supplementary Report of the Factory Commissioners (Part I., pp. 137, 138), is perhaps as near an approximation to the truth as, from the nature of the subject (the numbers continually fluctuating), it is reasonable to expect. Being founded upon actual and extensive returns, the statement may be received as substantially, although not perhaps minutely, correct.

"The subsequent calculation does not aim at fixing the whole number of operatives dependent upon the cotton trade for subsistence, but only of that part of the operative body which earns a livelihood in cotton factories, *moved by power*, and is employed in carrying on the preparing,

spinning, weaving, and accessary mechanical departments within the walls of them.

"It does not comprehend hand-loom weavers, printers, bleachers, dyers, cotton-thread lace-makers (an enormous and growing branch of the cotton manufacture), and many other branches of manufacture, either arising out of, or immediately dependent upon, the spinning of cotton by power. It comprehends those operatives alone who habitually work in cotton factories. It shows their body to consist of 212,800 persons, and to earn annually the enormous sum of 5,777,434*l.*

"The total quantity of cotton consumed in the spinning of yarn, in Great Britain, in 1832, as stated in 'Burn's Commercial Glance,' was 277,260,490 lbs.; and of this quantity, 27,327,120 lbs. was consumed in Scotland, leaving for the consumption of England 249,933,370 lbs.

"The net loss of cotton in spinning is estimated variously by different individuals. In the calculations of Mr. Kennedy, made use of by him in a paper published in the 'Transactions of the Manchester Literary and Philosophical Society,' it is taken at 1½ oz. per lb.; while Montgomery, in his 'Theory and Practice of Cotton-Spinning,' computes it at 1⅝ oz., and Burn at 1¾ oz.; but as the amount taken by Mr. Kennedy is that which appears to be generally considered correct, it is adopted in these calculations.

"If, then, from the quantity given above, we deduct 1½ oz. per lb., or 23,431,253 lbs., we shall have the total weight of yarn produced 226,502,117 lbs.

"The average number of hanks in each pound of yarn spun is considered, by apparently a majority of persons conversant with the subject, to be 40. Montgomery takes the average counts spun in Great Britain at 50, which taking into account the finer average numbers spun in Scotland than in England, would fix the counts nearly as above stated.

"The returns made to the Lancashire forms of inquiry, as given in previous tables, show an average of finer counts than 40, but, as the returns were better made from the fine mills than from the coarse, and from Manchester, where the finer yarn is spun, than from the country, it is evident that lower numbers ought to be taken than those shown in the returns; and as the general opinion appears to be in favour of 40, this average is adopted.

"Three mills, in different situations, and of average capabilities, made a return of the quantity produced by them in the month ending the 4th May, 1833; and, as the average counts of the whole were 39·98 hanks to the lb., and as they also gave the number of hands employed in spinning during that month, and the duration of their labour, they furnished data from which may be easily calculated the total number employed in factories in England in preparing and spinning cotton.

"In the mill of the first, 344 persons in the spinning department, working 276 hours, produced—

18,000 lbs. of Nos. 30 to 32
18,000 lbs. of Nos. 38 to 42
2,400 lbs. of Nos. 150 to 170

"In the second mill 245 hands, working 270 hours, produced—

1,795 lbs. of No. 12
4,285 lbs. of No. 22
33,838 lbs. of No. 40

"And in the third, 110 hands, working 286 hours, produced—

16,700 lbs. of No. 40

"The average counts of the three being, as before stated, 39·98, and the produce 95,018 lbs.

"The total number of hours worked will therefore be $\overline{344 \times 276} + \overline{245 \times 270} + \overline{110 \times 286} = 192{,}554$; and the produce of each person per hour, $\frac{95{,}018}{192{,}554} = 0{\cdot}49{,}346$ lbs.

"The usual estimate of 300 working days per annum of 11½ hours each, or 69 hours per week, would give $0{\cdot}49{,}346 \times 11{\cdot}5 \times 300 = 1{,}702{,}437$ lbs. the produce of each person per annum, and $\frac{226{,}502{,}117}{1{,}702{,}437} = 133{,}045$, the number of persons employed in the preparation and spinning of cotton in England.

"On examination of Supplement (Z*) it will be seen that in the 67,819 persons of whom returns were made to the Commission, there were 42,401 engaged in preparing and spinning cotton, 23,920 in the weaving department, and 1,498 as engineers, mechanics, roller-coverers, &c.

"If, then, the same proportions are taken as existing in the total number of cotton-workers which are found in the returns made to the Lancashire forms of inquiry, the number of persons engaged in the manufacture of cotton-cloth in factories will be 75,055, and of those employed as engineers, &c., 4,700; making, with the 133,045 in the spinning department, a general total of 212,800 persons engaged in cotton-factories.

"Which total number of 212,800 persons may be divided and distributed, by adopting the proportions given in the returns made to the Lancashire forms of inquiry, so as to show the probable number of persons employed in each of the eight branches or departments of cotton-working, and the aggregate amount of their net earnings per month."

* Statement of the distribution of 67,819 hands into eight different branches or departments of cotton working, given in a previous page of the Supplement.

Employed in	Adults.		Children under 18 Years of Age.					
			Males.			Females.		
	Males.	Females	In the direct Employ of Masters.	In the direct Employ of Operatives.	Employers uncertain.	In the direct Employ of Masters.	In the direct Employ of Operatives.	Employers uncertain.
Cleaning and spreading cotton	1,330	2,319	951	3	31	345	6	13
Carding	10,361	15,062	4,983	461	78	8,099	458	163
Mule-spinning	22,727	5,196	3,088	23,634	257	1,255	8,663	82
Throstle-spinning	793	3,000	1,409	25	100	2,203	19	160
Reeling	722	11,208	182	25	..	2,306	76	119
Weaving	20,440	28,566	4,581	2,582	204	12,109	4,261	119
Roller-covering	261	389	19	3	..	31	22	..
Engineers, &c.	3,759	34	151	9	19	3	..	..
Total.	60,393	65,774	15,314	26,742	689	26,351	13,505	656

Employed in	Proportion whose Age and Sex are uncertain, from a deficiency in the Returns.	Total Number Employed.	Aggregate Amount of Monthly Net Earnings.
			£. s. d.
Cleaning and spreading cotton	..	4,998	8,631 19 6
Carding	819	40,484	75,276 10 0
Mule-spinning	364	65,216	139,660 17 9
Throstle-spinning	..	7,709	11,615 10 1
Reeling	..	14,638	22,817 8 4
Weaving	2,193	75,050	168,663 16 3
Roller-covering	..	725	1,764 18 5
Engineers, &c.	..	3,975	15,987 0 9
Total.	3,376	212,800	444,481 1 1

The foregoing table was, as already explained, constructed in order to show, from the result of partial returns, the probable number of persons employed in the various cotton-mills throughout the kingdom, divided according to their different employments. More extensive returns have since been obtained by the Factory Inspectors, and it is satisfactory to observe how nearly these later and more detailed returns bear out the estimate formed by Mr. Stanway, and adopted by the Commissioners. It will be seen that the computation made by Mr. Stanway gives 212,800 as the number of persons of all ages employed in spinning and weaving factories in the United Kingdom; while the actual number given in to the Inspectors in 1835 amounts to 220,143 persons, being a difference of only 7,334, or not quite 3½ per cent. Before giving the summary of the statements made by the Inspectors in 1835 and 1839, it may be satisfactory to insert the following particulars derived from returns made to the Commissioners, by the proprietors of 225 cotton mills in Lancashire:—

Place where Employed.	Adults.		Children under 18 Years.						Total Number Employed.	Aggregate Amount of their Net Earnings for the Month ending 4th May, 1833.			Number paid by fixed Daily Wages.	Number paid in proportion to the Quantity produced.	Number whose Mode of Payment is not given in Returns.
			Males.			Females.									
	Males.	Females.	In the direct Employ of Masters.	In the direct Employ of Operatives.	Employers uncertain.	In the direct Employ of Masters.	In the direct Employ of Operatives.	Employers uncertain.		£.	s.	d.			
Manchester and immediate neighbourhood	5,847	7,624	1,734	2,803	63	2,592	1,640	59	22,442	45,164	9	5	11,690	9,178	1,574
Stockport and Heaton Norris	2,601	2,525	660	1,027	28	976	541	38	8,396	18,405	5	9½	3,470	4,764	162
Duckenfield and Stayley Bridge	2,551	2,421	347	976	9	859	358	25	8,542	19,409	7	5½	2,693	3,827	2,022
Hyde, Brinnington, &c.	2,802	3,507	1,076	832	51	1,921	180	13	10,382	23,397	16	10	2,409	6,637	1,336
Tintwistle, Glossop, &c.	1,321	1,413	233	591	26	423	333	30	4,370	8,884	10	4½	1,796	1,917	657
Oldham	1,954	1,388	310	882	40	694	389	38	5,695	11,467	9	9¾	2,672	2,806	217
Bolton	1,650	1,482	383	1,204	3	696	750	6	6,174	11,548	15	7	4,285	1,833	56
Warrington	334	355	65	150	..	110	88	..	1,102	2,019	4	6¼	348	539	215
Greg & Co. and R. & T. Taylor	187	247	72	58	..	127	25	..	716	1,338	5	10½	250	449	17
Total	19,247	20,962	4,880	8,523	220	8,398	4,304	209	67,819	141,635	5	7¾	29,613	31,950	6,256

Employed in	Adults.		Children under 18 Years.						Number of Persons whose Age and Sex are not given in Returns.	Total Number of Persons Employed.	Aggregate Amount of their Net Earnings for the Month ending 4th May, 1833.		
			Males.			Females.							
	Males.	Females.	In the direct Employ of Masters.	In the direct Employ of Operatives.	Employers uncertain.	In the direct Employ of Masters.	In the direct Employ of Operatives.	Employers uncertain.			£.	s.	d.
Cleaning and spreading cotton	424	739	303	1	10	110	2	4	..	1,593	2,750	19	11
Carding	3,302	4,800	1,588	147	25	2,581	146	52	261	12,902	23,990	9	10½
Mule-spinning	7,243	1,656	968	7,532	82	400	2,761	26	116	20,784	44,509	13	9¼
Throstle-spinning	253	956	449	8	32	702	6	51	..	2,457	3,701	16	10
Reeling	230	3,572	58	8	..	735	24	38	..	4,665	7,271	17	5½
Weaving	6,514	9,104	1,460	823	65	3,859	1,358	38	699	23,920	53,752	17	5½
Roller-covering	83	124	6	1	..	10	7	..	..	231	562	9	6½
As engineers, mechanics, firemen, &c.	1,198	11	48	3	6	1	..	..	..	1,267	5,005	0	9¾
Total	19,247	20,962	4,880	8,523	220	8,398	4,304	209	1,076	67,819	141,635	5	7¾

Statement of the Number of Cotton Factories in operation in the different parts of the United Kingdom, with the Number and Ages of the Persons employed therein, abstracted from Returns made by the Inspectors of Factories in 1835.

COUNTIES, &c.	Number of Factories.		Between 8 and 12 Years.		Between 12 and 13 Years.		Between 13 and 18 Years.		Above 18 Years.		Total Number of Persons employed.		
	At Work.	Empty.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
ENGLAND.													
Chester	109	7	425	406	1,448	1,206	3,672	4,315	9,971	10,069	15,516	15,996	31,512
Cumberland	13	..	8	4	57	38	169	332	392	658	626	1,032	1,658
Derby	92	3	182	192	504	564	1,073	1,924	2,855	3,556	4,614	6,236	10,850
Durham	1	..	..	..	..	2	1	11	8	11	9	24	33
Lancaster	683	32	2,806	1,983	6,419	5,261	16,855	20,365	34,071	34,655	60,151	62,264	122,415
Leicester	6	..	9	..	66	17	130	92	120	158	325	267	592
Middlesex	7	..	22	..	24	..	109	14	62	119	217	133	350
Nottingham	20	..	17	23	82	131	132	382	250	706	481	1,242	1,723
Stafford	13	..	72	78	67	113	201	403	409	705	749	1,299	2,048
York, West Riding	126	..	489	387	529	533	1,632	2,031	2,537	2,773	5,187	5,724	10,911
Total England	1,070	42	4,030	3,073	9,196	7,865	23,974	29,869	50,675	53,410	87,875	94,217	182,092
Wales (Flint)	5	..	..	..	56	33	146	208	250	458	452	699	1,151
Scotland	159	..	454	538	1,258	1,832	2,845	7,597	6,168	12,403	10,529	22,051	32,580
Ireland	28	..	44	58	153	181	286	561	960	1,553	1,639	2,672	4,311
Total United Kingdom	1,262	42	4,528	3,669	10,663	9,911	27,251	38,235	58,053	67,824	100,495	119,639	220,134

Statement of the Number of Cotton Factories in operation in different parts of the United Kingdom, with the Number and Power of the Engines, and the Number and Ages of Persons employed therein in the Year 1839.

	England.		Wales.		Scotland.		Ireland.		United Kingdom.	
Mills at Work .	1,598		5		192		24		1,819	
Mills Empty .	88		..		6		1		95	
	E.	H.P.	E.	H.P.	E.	H.P.	E.	H.P.	E.	H.P.
Steam Power .	1,422	40,590	7	108	193	5,612	19	517	1,641	46,827
Water Power .	574	9,537	5	140	73	2,728	22	572	674	12,977
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
PERSONS										
Under 10 years .	1,022	673	7	1	79	57	1	..	1,109	731
10 to 11 " .	1,451	980	14	..	147	120	6	9	1,618	1,109
11 " 12 " .	1,667	1,178	14	5	180	170	9	1	1,870	1,354
12 " 13 " .	2,227	1,745	14	23	249	254	19	5	2,509	2,027
13 " 14 " .	9,892	10,476	69	56	1,308	2,159	173	243	11,442	12,934
14 " 15 " .	9,769	10,068	16	53	1,144	2,214	158	251	11,087	12,586
15 " 16 " .	7,009	9,258	16	46	818	1,975	150	235	7,993	11,514
16 " 17 " .	5,156	8,117	9	43	534	1,840	106	192	5,805	10,192
17 " 18 " .	4,446	7,470	28	59	396	1,854	90	201	4,960	9,584
18 " 19 " .	5,000	9,302	8	50	373	2,103	65	280	5,446	11,735
19 " 20 " .	3,693	7,872	10	48	313	1,835	55	191	4,071	9,946
20 " 21 " .	3,705	6,974	7	33	287	1,479	80	226	4,079	8,712
21 and upwards.	44,819	44,167	164	217	5,116	8,576	853	1,023	50,952	53,971
Total . .	99,856	118,280	376	634	10,944	24,624	1,765	2,857	112,941	146,895
	218,136		1,010		35,568		4,622		259,336	

The numbers given in the foregoing summary have reference only to those branches of the cotton manufacture which are carried on in spinning and weaving factories, and do not include the persons employed in printing and dyeing, nor the numerous hand-loom weavers, with many other branches of the manufacture, and the great numbers who are otherwise directly or indirectly dependent upon it for support. Mr. M'Culloch has estimated that, "allowance being made for old and infirm persons, children, &c., dependent upon those actually employed in the various departments of the cotton manufacture; and in the construction, repairs, &c., of the machinery and buildings required to carry it on," the entire cotton manufacture "must furnish, on the most moderate computation, subsistence for from 1,200,000 to 1,300,000 persons."

If we were to apply Mr. Stanway's method of computation in order to discover the number of persons employed in factories at various periods, we should find that, for spinning the quantities of cotton used in 1801 and subsequent periods, the following numbers of persons would be required :—

Years.	Persons.	Years.	Persons.
1801	26,929	1826	80,918
1806	28,626	1831	135,742
1811	44,863	1834	153,304
1816	48,004*	1839	174,863
1821	68,257	1844	275,308

These numbers are exclusive of the persons who were employed in weaving in factories, and who, according to Mr. Stanway's estimate, amounted, in 1832, to 75,055.

It would by no means furnish a correct view, however, if the amount of labour required for the conversion of the given quantities of cotton into yarn at the above-mentioned periods were taken at an uniform rate. The vast improvements made during late years in the machinery applied to spinning has caused such an economy in the application of labour, that not one-half of the number of persons is now required for carrying forward the various manufacturing processes with a given weight of cotton, that were employed for producing an equal result thirty years ago. This fact will be sufficiently illustrated by the following statement, taken from the books of Mr. Thomas Houldsworth, an eminent cotton spinner of Manchester, and laid before the Committee on Manufactures, Commerce, &c., which sat in 1833. This statement will further show that, notwithstanding the great reduction in the rate of wages which has necessarily accompanied the introduction of improved machinery, the actual money-earnings of the operative spinner are greater now than they were at the beginning of the century, and that his command of the necessaries of life places him in a far more advantageous position than he then occupied.

Years.	Work turned off by one Spinner per Week.		Wages per Week.			Hours of Work per Week.	Prices from Greenwich Hospital Records.		Quantities which a Week's Net Earnings would purchase.	
	lbs.	Nos.	Gross.	Piecers.	Net.		Flour per Sack.	Flesh per lb.	lbs. of Flour.	lbs. of Flesh.
			s. d.	s. d.	s. d.		s. d.	d. d.		
1804	12	180	60 0	27 6	32 6	74	83 0	6 to 7	117	62½
,,	9	200	67 6	31 0	36 6	74	83 0	6 „ 7	124	73
1814	18	180	72 0	27 6	44 6	74	70 6	8	175	67
,,	13½	200	90 0	30 0	60 0	74	70 6	8	239	90
1833	22½	180	54 8	21 0	33 8	69	45 0	6	210	67
,,	19	200	65 3	23 6	42 9	69	45 0	6	267	85

"The sack of flour is taken at 280 lbs.

"The above is the result of an average of several men's work at the different periods."

It will be seen that, in 1833, the number of hours employed during the week was 69, instead of 74, which it had been in the former years. But for this reduction in the time of working, the net earnings would

* Beginning of Peace. In 1814, the last year of war, the number would be 26,715.

have been for No. 180, 36*s.* 1*d.*, and for No. 200, 45*s.* 10*d.*; and the quantities of flour and meat would have been for No. 180, 224 lbs. and 72 lbs., and for No. 200, 285 lbs. and 91 lbs., respectively.

The result of the foregoing table is corroborated by Mr. Babbage, who, in his "Economy of Manufactures," (pp. 337-9, fourth edition,) gives the following statement:—

"A machine called in the cotton manufacture a 'stretcher,' worked by one man, produced as follows:—

Years.	Pounds of Cotton Spun.	Roving Wages per Score. s. d.	Rate of Earning per Week. s. d.
1810	400	1 3½	25 10
1811	600	0 10	25 0
1813	850	0 9	31 10½
1823	1000	0 7½	31 3

"The same man working at another stretcher, the roving a little finer, produced:—

Years.	Pounds of Cotton Spun.	Roving Wages per Score. s. d.	Rate of Earning per Week. s. d.
1823	900	0 7½	28 1½
1825	1000	0 7	27 6
1827	1200	0 6	30 0
1832	1200	0 6	30 0

"In this instance, production has gradually increased, until, at the end of 22 years, three times as much work is done as at the commencement, although the manual labour employed remains the same. The weekly earnings of the workmen have not fluctuated very much, and appear on the whole to have advanced; but it would be imprudent to push too far reasonings founded upon a single instance.

"The produce of 480 spindles of 'mule-yarn spinning' at different periods was as follows:—

Years.	Hanks, about forty to the pound.	Wages per Thousand. s. d.
1806	6,668	9 2
1823	8,000	6 3
1832	10,000	3 8

"The subjoined view of the state of weaving by hand and by power-looms at Stockport, in the years 1822 and 1832, is taken from an enumeration of the machines contained in sixty-five factories, and was collected for the purpose of being given in evidence before a Committee of the House of Commons.

	In 1822.	In 1832.	
Hand-loom weavers	2,800	800	2,000 decrease
Persons using power-looms . .	657	3,059	2,402 increase
Persons to dress the warp . . .	98	388	290 increase
Total persons employed . .	3,555	4,247	692 increase
Power-looms	1,970	9,177	8,207 increase

During this period the number of hand-looms in employment diminished five-sevenths, whilst that of power-looms increased to more than five times its former amount. The total number of workmen increased about one-third; but the amount of manufactured goods (supposing each power-loom to do only the work of three hand-looms) was three and a half times as large as it was before.

"In considering this increase of employment, it must be admitted that the two thousand persons thrown out of work are not exactly of the same class as those called into employment by the power-looms. A hand-weaver must possess bodily strength, which is not essential for a person attending a power-loom: consequently women and young persons of both sexes, from fifteen to seventeen years of age, find employment in power-loom factories. This, however, would be a very limited view of the employment arising from the introduction of power-looms; the skill called into action in building the new factories, in constructing the new machinery, in making the steam-engines to drive it, and in devising improvements in the structure of the looms, as well as in regulating the economy of the establishment, is of a much higher order than that which it had assisted in superseding; and if we possessed any means of measuring this, it would probably be found larger in amount. Nor in this view of the subject must we omit the fact that, although hand-looms would have increased in number if those moved by steam had not been invented, yet it is the cheapness of the article manufactured by power-looms which has caused this great extension of their employment; and that, by diminishing the price of one article of commerce, we always call into additional activity the energy of those who produce others. It appears that the number of hand-looms in use in England and Scotland, in 1830, was about 240,000; nearly the same number existed in the year 1820; whereas the number of power-looms, which in 1830 was 55,000,* had, in 1820, been 14,000. When it is considered that each of those power-looms did as much work as three worked by hand, the increased producing power was equal to that of 123,000 hand-looms. During the whole of this period the wages and employment of hand-loom weavers have been very precarious."

In the cotton-mill of Messrs. Houldsworths, in Glasgow, a spinner employed on a mule of 336 spindles and spinning cotton 120 hanks to the pound, produced, in 1823, working 74½ hours in the week, 46 pounds of yarn, his net weekly earnings for which amounted to 26*s.* 7*d.* In 1833, the rate of wages having in the meanwhile been reduced 13⅓ per cent., and the time of working having been lessened to 69 hours, the spinner was enabled, by the greater perfection of the machinery, to produce on a mule of the same number of spindles, 52½ pounds of yarn of the same fineness, and his net weekly earnings were advanced to 29*s.* 10*d.*

* The number estimated by Mr. Kennedy in 1820.

But a much more considerable economy than this has been produced in cotton-mills by increasing the size of the mules. Mr. Cowell, in his "Explanatory Preface to the Tables relative to Cotton and Silk Mills in the Lancashire District," inserted in the Supplementary Report of the Factory Commissioners, gives the following example of the effect of this improvement, as regards the cost of the yarn and the earnings of the spinner.

"In the year 1833, in two fine spinning-mills at Manchester, while I was in the town, a spinner could produce 16 pounds of yarn of the fineness of 200 hanks to the pound, from mules of the productive fertility of 300 to 324, working them 69 hours; and the quantity that he turned off in 69 hours more frequently exceeded 16 pounds than fell short of it.

"These very mules were being replaced by others of double power while I was at Manchester. Let us examine the effect on the spinner's earnings:—In the early part of last year he produced 16 pounds of yarn of No. 200 from mules of the power of 300 to 324 spindles. Consulting the list of prices, I perceive that in May he was paid 3*s.* 6*d.* a pound; this gives 54*s.* for his gross receipts, out of which he had to pay (I will put the amount high) 13*s.* for assistants. This leaves him with 41*s.* earnings. His mules have their productive fertility doubled; they are converted into mules of the power of 648; he is now paid 2*s.* 5*d.* a pound instead of 3*s.* 6*d.*; but he produces 32 pounds of yarn of the fineness of 200 hanks to the pound in 69 hours; his gross receipts are immediately raised to 77*s.* 4*d.* I will now admit that he requires *five* assistants to help him, and averaging their cost at 5*s.* a-piece, their labour will cost him 25*s.*, and to avoid all cavil, I will add 2*s.* extra; then deducting 27*s.* from his gross receipts, there remains a sum of 50*s.* 4*d.* for his net earnings for 69 hours' work instead of 41*s.*, an increase of more than 20 per cent., while the cost of the yarn is reduced 13*d.* per pound."

An effect such as has just been described can only be produced while the trade is in a course of rapid extension. If the productive power of the machines were doubled without a corresponding increase in the demand, it is clear that the operative spinners could not receive a greater amount of weekly earnings, but that, on the contrary, many of them would be thrown out of work, and a competition for employment would thence arise which must occasion a reduction in their actual receipts. Considered in this point of view, the prosperity of this branch of national industry becomes a subject of the greatest importance—an importance far beyond all calculation of mere shillings and pence. The tendency of all improvements in the various processes of the cotton manufacture is the abridgment of human labour, but hitherto, such has been the gigantic progress of the trade, as to give full employment to the hands

who, in a less prosperous state of things, would have been thrown out of work. Nor is this all. The assistants of the spinners, who, from their occupation in joining the threads broken in the spinning, are called *piecers*, and who are much more numerous than the spinners themselves, are, while thus employed, qualifying themselves to become spinners when they grow up. Hitherto the demand for workmen of that kind has been sufficiently great to absorb all who have thus been qualified, and to cause them to receive, as spinners, adequate and even liberal wages. Piecers are generally employed in the proportion of four to one spinner, but one of these four is generally a girl, who does not in after-life become a spinner, but is transferred to some other department of the mill. It is further probable that, of the three boys, one may cease to work in a factory, but even then the number of candidates for employment as spinners will be continually doubled in the course of a few years, and if we had no other means for ascertaining the progressive extension of the manufacture, the fact of the continual absorption of these fresh hands would prove how great that extension must be—that it must have continued with a constantly accelerated speed in order not to lower the earnings of the operative spinners, whose ranks are thus increased in a geometrical ratio.

Provided nothing shall occur to prevent the cotton manufacture of this country from developing itself in the same extraordinary manner as it has done during the last thirty years, the new candidates for employment will of course receive the same encouragement as those have experienced who have preceded them. But this is a state of things liable to be deranged. There are many causes which might contribute to this derangement. A war, however much on other grounds to be deplored, might in this respect be among the least fatal of the checks to our manufacturing industry, since it would offer another employment in the place of those which would be abridged. The closing of foreign markets through the increasing skill or the jealousy of manufacturers in other countries, and a falling off in the hitherto continually augmented supply of the raw material, are among the more obvious of those adverse circumstances. The closing against us of some accustomed channels of trade has, at various times, been experienced; but the degree of distress which it would otherwise have occasioned has, in a short time, been removed by the demands of new customers, who have, in a measure, been compelled to become such by the continually diminishing prices of our goods. It will be seen, in a future section of this work, in how great a degree these counteracting causes have operated during the last forty-five years; but although hitherto the favourable have always more than counterbalanced the unfavourable circumstances that have affected the demand for our products, it can hardly be hoped that the same good fortune will always attend us; that "new worlds" are to be continually

"called into existence" as fast as the improvement of our spinning and weaving machinery may require new customers; or that another India will offer a market in which we can undersell the native manufactures of fabrics, the raw material for which is grown upon their own soil, and which from time immemorial have been among the chief staples of their country.

These forebodings might, it is true, have been advanced with apparently equal reason at any time during the period in which the cotton manufacture of England has been attaining to the magnitude which it has now reached, and which it has been endeavoured faintly to sketch. According to present appearances there has, indeed, hardly ever been a time in which those forebodings might not have been urged with greater reason than now, when the real demands of consumers in almost every part of the world are giving unremitted employment to every spindle and loom throughout the kingdom He must, however, have read the page of history, and especially of commercial history, to very little purpose who has not perceived that, when least dreaded and expected, changes will sometimes arise which no foresight could predict, no prudence or exertion avert. The better understanding of the principles of trade on the part of those to whom the business of legislation is confided will, we may hope, do much to prevent the dreaded reverses; an increasing degree of enlightenment among the rulers of other countries, leading them to a greater encouragement of commercial intercourse, may do more; and it is to be hoped and expected that the example in this respect set within the last few years by England, in abandoning restrictions which were so long and pertinaciously held by her, may overcome those prejudices in the minds of foreigners, which our commercial success in spite of those restrictions has fostered, and that a spirit of liberality between nations will be henceforward acknowledged as the truest means for promoting the prosperity of each. When all this shall be accomplished, however, constant vigilance will be required, not indeed for what is called the *protection* of our great manufacture, but to avert or to remove obstacles as they may present themselves, and especially to relieve the springs of industry from those which yet remain of the shackles by which its energy has in former times been cramped. Much has been done to this end already during late years, by reforming our tariff, and we may confidently hope that whatever remains to be effected in this respect will be completed by following out the same enlightened policy under which so many reforms have already been brought about in our commercial system. Any further observations on this branch of the subject may, with more propriety, be deferred to that part of this work which will be devoted to the consideration of our external commerce.

The following table (page 200) of the number of power-looms used

in the various manufactures of this country in 1835 has been compiled from returns obtained by the Inspectors of Factories, and laid before Parliament.

Statement of the Number of Power-Looms used in Factories in the United Kingdom, at the end of the Year 1835, *distinguishing Counties, and the Branch of Manufacture in which the same are used.*

COUNTIES.	Cotton.	Woollen.	Silk.	Flax.	Mixed Goods.	Total.
Lancaster	61,176	1,142	366	..	..	62,684
Westmoreland	..	8	..	..	..	8
Chester	22,491	8	414	..	..	22,913
Derby	2,403	..	166	..	..	2,569
York	4,039	3,770	..	..	..	7,809
Stafford	336	..	119	..	..	455
Devon	..	..	80	..	..	80
Essex	..	..	106	..	..	106
Kent	..	..	..	12	..	12
Leicester	40	89	..	..	..	129
Middlesex	8	..	..	..	..	8
Norfolk	..	..	300	..	..	300
Somerset	..	74	156	..	..	230
Warwick	..	..	..	..	25	25
Worcester	..	..	7	..	..	7
Gloucester	..	4	..	..	..	4
Montgomery	..	4	..	..	..	4
Cumberland	186	..	..	..	..	186
Durham	..	..	..	29	..	29
Northumberland	..	6	..	..	..	6
Total in England	90,679	5,105	1,714	41	25	97,564
Lanark	14,069	..	..	..	..	14,069
Renfrew	1,339	..	..	26	..	1,365
Dumbarton	534	..	..	..	..	534
Bute	94	..	..	..	..	94
Ayr	736	..	..	..	..	736
Kirkcudbright	90	..	..	..	..	90
Perth	421	..	..	..	..	421
Aberdeen	248	..	..	142	..	390
Roxburgh	..	22	..	..	..	22
Total in Scotland	17,531	22	..	168	..	17,721
Waterford	339	..	..	..	..	339
Wexford	67	..	..	..	..	67
Kildare	52	..	..	..	..	52
Dublin	23	..	..	..	..	23
Antrim	340	..	..	..	..	340
Down	425	..	..	..	..	425
Armagh	170	..	..	100	..	270
Total in Ireland	1,416	..	..	100	..	1,516

SUMMARY.

England	90,679	5,105	1,714	41	25	97,564
Scotland	17,531	22	..	168	..	17,721
Ireland	1,416	..	..	100	..	1,516
United Kingdom	109,626	5,127	1,714	309	25*	116,801

* The materials used are worsted, cotton, silk, and India-rubber thread; the articles manufactured are girths, belts, braces, garters, and the like.

The art of printing on woven fabrics is of very ancient origin. Anderson, in his "History of Commerce," states that it was first practised in London in 1676. The first cotton printer in England is said to have been a Frenchman, whose print-ground was at Richmond, on the banks of the Thames. Owing to the interference of parliament, first by the imposition of heavy duties, and afterwards by more direct restrictions, the trade was destroyed in 1720. The object of the legislature in this proceeding appears to have been the encouragement of the silk and woollen manufactures. The restriction against wearing printed fabrics, of which cotton formed a part, was repealed in 1736, and it was computed that, in 1750, as many as 50,000 pieces of goods made of linen-warp and cotton-weft were printed in England. At that time no means had been devised for spinning cotton-yarn of a strength which fitted it for forming the warp. In about fifteen years thereafter, the printing business was introduced into Lancashire, and from that time appears to have grown in proportion to the increase of the cotton manufacture. But it is only during the present century that this branch of industry has attained to any considerable importance. In consequence of the duty imposed upon printed cottons, we are acquainted with the quantity which has undergone the process at different periods up to the year 1831, when the duty was wholly repealed.

	Yards.
The quantity printed in 1796 was . . .	20,621,797
In 1800, it had increased to	32,869,729
In 1814, it had further increased to . . .	124,613,472
And in 1830, it had reached to	347,450,299

being more than ten times the quantity printed at the beginning of the century, while on the other hand it is less by 194,973,292 yards than the quantity exported in 1849. The quantity printed in 1830, after providing 199,799,466 yards for exportation, left 147,650,833 yards for use at home.

This great increase must be ascribed to the improved contrivances and processes which, in the interval have been introduced. By some of these, processes which formerly occupied many weeks are now performed in a few hours, effecting a great saving of labour and in the amount of capital required. The substitution of metallic cylinders on which the patterns are engraved, in place of wooden blocks, was first practised about 1785, and at once effected a great saving. The process of engraving the entire surface of these large cylinders was, however, a very expensive operation; it was consequently a more important improvement when the system was introduced of engraving the pattern upon a small steel cylinder, and thence transferring it by pressure, first to softened steel, and then, this being hardened, to copper cylinders; in the manner which has since been used for multiplying plates used for printing bank-notes. By this means the engraved patterns can be

transferred to almost an indefinite number of cylinders at a trifling expense. The small cylinder upon which the engraving is first sunk is called the *die*, the second cylinder to which the pattern is transferred in relief is called the *mill*. This, when hardened, will give the required impression to a great number of cylinders made of the softer metal, and as the die can likewise be made to give up its pattern to several mills, a sufficient number of cylinders can always be produced from one engraving.

The introduction of this great improvement took place about 1808, and has had a powerful effect in extending the trade of the country. At this time, cylinders thus made and engraved, after the novelty of the pattern is gone by in England, are exported to various parts of Europe and America.

The policy of subjecting such an article as printed cottons to the burthen and restrictions of the excise laws was always much questioned. To preserve our export trade, it was, of course, necessary, during the continuance of the duty, to grant a drawback upon shipment equal to the amount of the duty. The net revenue derived from the tax, on an average of the ten years preceding its repeal, was a little more than 600,000*l.* per annum; but in order to realize this sum to the Exchequer, the gross amount of duty levied during the same time averaged 1,850,000*l.* per annum, more than two-thirds of the same being repaid as drawback upon quantities exported. This, in itself, was a great and acknowledged evil: it held out temptation, and opened the door to frauds, which, it is well known, were committed to a considerable extent; and besides this crying evil, the interference of revenue regulations placed many obstacles in the way of experiments and improvements as we have since happily been able to ascertain. Without entering into any minute explanations upon the subject, it may be stated, in proof of this assertion, and upon the authority of a gentleman thoroughly and intimately conversant with all the details of calico printing, that, upon the same premises, with the same capital, and employing the same amount of labour, double the quantity of cloths are now printed which were printed previous to the repeal of the duty, and to the consequent removal of the revenue-officers from the print works.

Another very great improvement has been effected of late years. At first, only one colour could be imparted to the pattern on the cylinder; and if more than one colour were required, it was necessary to resort to a different process, and to print the several colours by different operations. This disadvantage was at length partially got over; so that, five years ago, printers were enabled to impart two, and even three colours by means of cylinders; and it is now common to print five colours at one operation. The vast improvement which has latterly been produced in the style and execution of printed cotton goods is matter of

such common observation, that it cannot be necessary to enlarge upon it here: but for it, the cotton manufacture could not, in this branch, have stood against the powerful rivalry to which it has of late been subjected by our silk manufacture. This improvement has been assisted by the discovery of a method for imparting to cotton fabrics the brilliant red colour of cochineal, which was previously applied to woollens only. This is effected by simply passing a current of steam on to cloth to which the cochineal-dye has previously been applied, that process having the effect of fixing the colour.

It is not possible to make any very satisfactory estimate of the growth and progress of the manufacture of hosiery. The greater part of our knowledge concerning it is due to the personal exertions of Mr. Felkin, a merchant of Nottingham, the carefulness and accuracy of whose investigations are generally recognised. These, however, apply only to recent years, and we cannot put equal faith in the results offered by previous inquirers.

The chief seats of the hosiery manufacture are the counties of Derby, Nottingham, and Leicester, in the last named of which nearly all the frames in which wool is employed are to be found, while Nottingham contains the largest number of frames for the production of cotton hosiery. The use of silk in this branch of manufacture is almost wholly confined to Derby and Nottingham.

Blackner estimated that in 1812 there were 29,590 stocking frames at work in all the branches. Thirty years before that time the number had been estimated at 20,000. If we are to judge from the localities assigned to the frames in 1812, it would appear that rather more than one-third were employed in producing cotton hose, and that about one-half were used for woollen goods, but no very accurate estimate of the proportions can be formed from the locality of the machines. In 1833, a meeting was held of delegates from the frame-work knitters, when a resolution was formed for dividing the seat of the hosiery manufacture into districts, with the view of obtaining, among other things, exact details of the number and description of frames, the amount of labour employed in them, and such further particulars as might enable the workmen to co-operate for the more effectual protection and advancement of their interests. The resolution thus formed was not, indeed, carried into effect in the manner nor with the objects proposed; but was of advantage, by its having been the means of drawing the attention of Mr. Felkin to the subject, who drew up an estimate of the extent of the manufacture in its various branches, which was believed to present a sufficiently accurate approximation to the condition of the trade at that time to answer all practical purposes. The following is Mr. Felkin's estimate for 1833.—*See* page 204.

Each narrow cotton-frame produces about 40 dozen of hose a-year, if of women's size; wide cotton-frames, 300; narrow worsted, 75; wide worsted, 150; and silk, 30. There are—

Frames.				Dozen.		lbs.		Valued at £.	Wages for Making. £.	And Finishing. £.	Total. £.
10,300	making	fashioned cotton hose,	produce	420,000	and consume	880,000	of cotton yarn	73,000	220,000	32,000	325,000
6,000	„	cut up, &c.	„	1,960,000	„	2,940,000	„	172,000	285,000	98,000	555,000
9,500	„	fashioned worsted	„	710,000	„	2,840,000	of worsted	284,000	215,000	41,000	540,000
1,000	„	cut-up, &c.	„	100,000	„	400,000	„	40,000	30,000	10,000	80,000
1,300	„	angola	„	95,000	„	332,500	„	45,000	40,000	19,000	104,000
1,900	„	lambs'-wool	„	135,000	„	639,500	„	80,000	50,000	16,000	146,000
3,000	„	silk	„	90,000	„	105,000	of silk	120,000	108,000	13,000	241,000
33,000				3,510,000		8,137,000		814,000	948,000	229,000	1,991,000

According to this calculation, the value of the cotton hosiery annually made is 880,000*l.*; that of worsted, &c., is 870,000*l.*; and that of silk is 241,000*l.*—To produce these goods it is probable that 4,584,000 lbs. of raw cotton wool, value 153,000*l.*, are used; and 140,000 lbs. of raw silk, (two-fifths China and three-fifths Novi,) value 91,000*l.*; also 6,318,000 lbs. of English wool, value 316,000*l.* The total original value of the materials used is therefore 560,000*l.*, which, it appears, becomes of the ultimate cost value of 1,991,000*l.* in this manufacture.

There are employed in the various processes as follows, viz.:—

In cotton-spinning, doubling, &c., 3,000; worsted-carding, spinning, &c., 2,500; silk-winding, throwing, &c., 1,000	6,500
In making stockings, 13,000 men, 10,000 women, 10,000 youths; and women and children in seaming, winding, &c., 27,000	60,000
In embroidering, mending, bleaching, dyeing, dressing, putting-up, &c., probably about	6,500
Total persons employed	73,000

The capital employed in the various branches of the trade may be thus estimated, taking the machinery and frames at neither their original cost nor actual selling price, but at their working value, and the stocks of hosiery on an average of years:—

	£.	In Process & Stock. £.		£.	In Process & Stock. £.
In mills and machinery for preparing cotton,	70,000	In wool and yarn, 85,000	In narrow cotton frames,	62,000	In goods. . . 350,000
„ „ worsted, &c.,	52,000	„ 150,000	In wide „	60,000	„ . . . 345,000
„ „ silk,	18,000	„ 35,000	In narrow worsted frames,	76,000	„ . . . 85,000
			In wide „	11,000	
			In silk frames	36,000	
Fixed capital in mills, &c. . .	140,000				
„ in frames . . .	245,000	Floating capital in spinning, &c. } 270,000	Fixed capital in frames	245,000	Floating capital, making hose } 780,000
					Spinning, &c. . 270,000
Total of fixed capital. . . .	385,000		Total of floating capital		1,050,000

At the meeting of the British Association at York, in 1844, Mr. Felkin read a very elaborate report, which has since been printed, on the hosiery trade, and the condition of the frame-work knitters. The survey and census upon which Mr. Felkin founded his report, were made in the spring and summer of 1844, as far as respects the midland counties of England, by agents whom he employed for that purpose. The estimate for the remaining parts of the kingdom were adopted and considered correct by Mr. Felkin, whose intimate acquaintance with the condition of the manufacture in all its branches enables him to form an accurate judgment upon the subject.—*See* Table, page 206.

Since 1812, when Mr. Blackner made the estimate of 29,590 frames as the total of what were used in the United Kingdom, many frames have been widened so as to make two stockings at once, which was not the case before. The quantity of cotton hosiery goods made in 1833 was estimated by Mr. Felkin to have increased more than fifty per cent. in the preceding twenty years—an opinion which agrees with the fact which everybody must have observed, that the use of cotton stockings has, during that time, been superseding those of woollen to a great extent among the female part of the population. It will also be seen from the statement of Mr. Felkin, that the number of frames employed for making cotton goods, which in 1812 was about one-third the whole number employed, formed about one-half in 1833, or 16,300 out of 33,000 frames.

The making of stockings is altogether a domestic manufacture, being carried on in the dwellings of the workmen. Some of these persons possess frames, which are their own property, but the greater part use frames which belong to the master-manufacturers by whom the workmen are employed, and who are paid by those workmen an annual rent, varying from forty shillings to five pounds, according to the size and capability of the frame.

The bobbin-net manufacture has altogether risen up during the present century, and in a comparatively small number of years has become an object of national importance, finding employment for between 150,000 and 200,000 persons, whose wages amount to 2,500,000*l.* per annum, as stated in a memorial addressed in June, 1834, to the Lords of the Treasury by the principal merchants and manufacturers engaged in the bobbin-net trade.

The first successful attempt at producing, by means of machinery, net-work bearing the characteristics of lace, was made in 1809; and this machine, rude in its construction, and slow and inefficient in its operation, in comparison with the improved machinery now employed for the same purpose, was the subject of a patent, the possessors of which realized, during the continuance of their exclusive right, very large fortunes. Since the expiration of this patent, the machinery of the frame

DESCRIPTION OF GOODS.	Derby.	Notting-ham.	Leicester.	Other English Coun-ties.	Ire-land.	Scotland	Total Number of Frames.	Weight of Material.	Value of Material.	Dozens produced.	Wages.	Charges of Finishing and of Sale.	Market Value of Finished Goods.
SILK.	No.	No.	No.	No.	No.	No.	No.	lbs.	£.	Doz.	£.	£.	£.
Wrought hose, socks, and half hose	650	346	..	59	..	..	1,055	43,750	52,090	44,000	26,230		
Spurious, including purses and spun silk	106	193	3	40	20	..	362	20,000	7,500	40,000	11,000	55,627	333,763
Gloves	698	1,407	101	..	..	..	2,206	77,210	92,652	386,000	77,210		
Ribbed tops	..	148	..	..	..	..	148	7,000	7,014	must not be reckoned.	4,440		
	1,454	2,094	104	99	20	..	3,771	147,960	159,256	470,000	118,880		
COTTON.													
Wrought hose, socks, and half hose	3,900	5,544	6,446	652	44	240	16,826	2,500,000	111,000	930,000	359,300		
Spurious, drop-off, cut-up, &c.	255	4,547	..	34	100	..	4,936	2,016,000	77,800	1,234,000	148,000		
Gloves	..	849	487	..	..	..	1,336	312,000	14,500	534,000	40,000	166,450	998,700
Drawers, caps, shirts, &c.	218	1,062	..	..	..	..	1,280	672,000	25,500	96,000	38,400		
Fancy goods	7	438	..	..	..	..	445	90,000	4,400	78,000	13,350		
	4,380	12,440	6,933	686	144	240	24,823	5,590,000	233,200	2,872,000	599,050		
WOOL.													
Worsted, lambs' wool, and merino wrought hose and socks	2	61	7,061	162	5	2,165	9,456			1,050,000	189,000		
Spurious	..	..	1,798	6	10	200	2,014	8,000,000	650,000	720,000	61,000	244,750	1,223,750
Gloves	..	..	923	..	..	..	923			370,000	28,000		
Drawers, shirts, &c.	..	..	1,361	15	..	..	1,376			120,000	41,000		
Fancy goods	..	..	314	..	..	..	314			100,000	10,000		
	2	61	11,457	183	15	2,365	14,083	8,000,000	650,000	2,360,000	329,000		
FLAX.													
Wrought hose	..	..	..	..	86	..	86	9,000	3,000	3,600	2,200	1,300	6,500
Total	5,836	14,595	18,494	968	265	2,605	42,763	..	1,045,456	5,705,600	1,049,130	468,127	2,562,713

has been most importantly simplified, and its efficiency increased; so that, by the application of an equal amount of labour, twelve times the quantity of net is now produced which could have been previously made, and a quantity of the finished manufacture is now sold for 2*s.* 6*d.*, which, during the continuance of the patent, was sold for 5*l.* The extent to which the bobbin-net manufacture has since reached may be seen from the following statements drawn up in 1836 by Mr. Felkin, who has been personally interested in the trade from its commencement, and possesses all the requisite facilities for preparing an accurate estimate concerning it:—

Statistics of the Bobbin-Net Trade.

	£.	£.
Capital employed in spinning and doubling the yarn:—		
Fixed capital in 35 spinning and 24 doubling factories—724,000 spinning, 206,700 doubling spindles	715,000	
Floating capital in spinners' and doublers' stock, and necessary sundries	200,000	
	915,000	
Deduct one-sixth, employed for foreign bobbin-net trade	155,000	
Total capital employed in spinning and doubling for English bobbin-net trade		760,000
Capital employed in bobbin-net making:—		
Fixed capital in factories, principally for power-machines	85,000	
„ power-machines, averaging 11 quarters wide	170,000	
„ hand-machines, averaging 9 quarters wide	267,000	
Floating capital in stock on hand, power-owners	150,000	
„ „ „ hand-owners	250,000	
		922,000
Capital in embroidering, preparing, and stock		250,000
Total capital employed in the trade		£1,932,000

The value of the materials used is as follows:—

		s.	d.	£.
6,000	lbs. cotton yarn, No. 130 at	7	6	2,250
10,000	„ 140 „	8	0	4,000
75,000	„ 150 „	8	9	32,812
85,000	„ 160 „	9	6	40,375
95,000	„ 170 „	10	7	50,270
350,000	„ 180 „	12	0	210,000
250,000	„ 190 „	14	0	175,000
220,000	„ 200 „	16	0	176,000
60,000	„ 210 „	18	6	55,500
9,000	„ 220 „	21	3	9,563
1,160,000	lbs. yarn			775,770
	20 per cent. discount			151,154

	£.	£.
Net value of yarn	604,616	
Value of silk used	40,000	
Wages, interest, wear and tear, &c.	732,234	
Value of rough goods		1,376,850
200,000 pieces, gassed, 3*d.*		2,500
300,000 „ bleached, 10*d.*		12,500
300,000 „ dressed, 1*s.* 9*d.*		26,000
One-third figured, cost		350,000
200,000 pieces, wide-nets, finished, 1*s.* 6*d.*		15,000
100.000 „ quillings, 3*s.*		15,000
		£1,797,850

The number of machines, exclusive of 165 not at work, is 3,547, of the following descriptions:—

	Rotary.	Circular.	Lever.	Travers Warp.	Pusher-Grecian.	Total.
Plain	1,293	116	16	..	..	1,425
Quilling . . .	247	116	761	..	..	1,124
Fancy . . .	45	188	448	152	165	998
	1,585	420	1,225	152	165	3,547

The parts of the kingdom in which these machines are employed, are—

	Plain.	Quillings.	Fancy.	Total.	Quantity of Yarn used.
					lbs.
Nottinghamshire . .	372	1,006	782	2,160	640,000
Leicestershire . .	207	37	99	343	100,000
Derbyshire . . .	192	49	14	255	100,000
West of England . .	654	30	103	787	320,000
	1,425	1,122	998	3,545	1,160,000

The quantity and value of the rough goods produced by the different kinds of machines are—

	Square Yards.	£.
Rotary	15,827,848	662,255
Lever	8,327,240	476,959
Circular	2,627,137	141,864
Pusher-Grecian . . .	811,650	41,574
Travers Warp . . .	325,188	54,198
	27,919,063	1,376,850

The number of machine owners is 837, of whom—

302	possess only 1 machine.		5	possess from 31 to	40	machines.
203	„ „ 2 „		4	„ 41 „	50	„
212	„ from 3 to 5 machines.		5	„ 51 „	100	„
69	„ „ 6 „ 10 „		1	„	104	„
24	„ „ 11 „ 20 „		1	„	120	„
10	„ „ 21 „ 30 „		and 1	„	200	„

The power of the different kinds of machines as to the width of the bobbin-net produced, is—

Width stated in Quarters.	Rotary.	Circular.	Lever.	Pusher-Grecian.	Travers Warp.	Total.
4-Quarter	..	..	1	5	2	8
5 „	12	8	4	24	3	51
6 „	26	52	110	61	117	366
7 „	12	57	148	25	20	262
8 „	496	240	321	18	9	1,084
9 „	19	32	113	3	1	168
10 „	313	25	192	16	..	546
11 „	41	2	122	7	..	172
12 „	622	4	184	6	..	816
13 „	17	..	12	..	..	29
14 „	4	..	5	..	..	9
15 „	1	..	2	..	..	3
16 „	22	..	9	..	..	31
20 „	..	..	2	..	..	2
	1,585	420	1,225	165	152	3,547

The wages of persons employed in the different branches of the manufacture vary according to the kind of work produced. The net earnings of

Men are from	12*s.*	to 35*s.*	per week,	averaging about 16*s.*
Women	3*s.*	to 12*s.*	"	6*s.*
Children	1*s.* 6*d.*	to 5*s.*	"	2*s.* 6*d.*

Successive improvements in the arrangement of the machines had caused those first constructed—the Travers-warp machines—to go out of use, and a great number of them, which had cost 300*l.* each, were sold and broken up for the value of the iron which they contained. It has been found recently, that by a slight alteration these machines may be adapted to the production of fancy nets; such of them as remained have been thus modified at a small expense, and employed for the production of fabrics of continually-increasing beauty and value.

Mr. Felkin has kindly furnished the following particulars respecting this interesting branch of manufacture, showing the position which it occupied in 1844.

"The number of mills for spinning and doubling fine yarns is greatly increased since 1836, but the increased product is chiefly employed for warps in Bradford, Coventry, and Spitalfields, for the production of mixed goods. The capital employed in producing yarns for English lace is about the same as in 1836—

	£.	£.
Say		760,000
Fixed capital in 45 factories	90,000	
" 1750 steam power machines, averaging 13 quarters wide	280,000	
" 1450 hand machines, average 10 quarters wide . . .	150,000	
Floating capital in rough goods in process of making	500,000	
" process of embroidering and finishing . . .	300,000	
		1,320,000
Total capital employed in the trade . . .		£2,080,000

"The only improvement introduced since 1833 in the machinery for making plain nets has consisted in a contrivance for obtaining greater speed in the working. Several patents have been taken out for improvements in the style of the goods produced, and for modes of adapting the jacquard frame. The main object sought by the patentees has been the introduction of patterns in close imitation of pillow lace, and especially of Netherland lace, and their success in this object has been very great.

"The cheapness of these beautiful fabrics is calculated to excite astonishment. A yard in length of 12-quarter wide plain net, may now be bought for one shilling. A yard of platt net, of the same width, is worth from 20*s.* to 5*l.* The machine employed to make the former would cost in its construction 250*l.*, while the platt net machine would

cost from 500*l.* to 1000*l.* Fancy goods of all qualities, from one farthing to 20*s.* per yard, are at all times being made, and often in the same establishment.

"In 1837, the fancy productions of Nottingham were so far out of favour with the public, that the embroiderers were reduced to one-third of their former number, and those employed were earning miserable wages; but during the last three or four years so great has been the improvement in the taste and style of those goods, that the demand for them has been continually increasing at rising prices, and the wages of the workpeople have risen proportionally. This result has principally been owing to the application of the jacquard machine to this branch of manufacture; a result which has not been accomplished without great difficulty.

"The *warp-lace* manufacture is usually carried on separately from the bobbin-net branch. The machinery engaged in it, is chiefly employed by 15 firms in the town of Nottingham and the neighbourhood.

"The warp machine, which is a very beautiful modification of the stocking frame, is used for the production of articles of the most varied texture, from the stoutest cloth to the lightest gossamer net-work. There are either plain or fancy goods; for the latter kind, the jacquard machine is connected with it, and very splendid patterns are thus produced. At this time (September, 1845) 800 warp-frames are employed in making lace goods, 300 being worked with silk, and 500 with cotton yarn. These frames would cost in their construction, about 100,000*l.*

"They give employment to altogether about 4500 hands, viz.—

200	Overlookers, smiths, &c.	at 40*s.*	per week.
100	Machine hands	30	„
400	Ditto	25	„
500	Ditto	20	„
500	Ditto	15	„
1,000	Females, mending, putting up, &c.	10	„
1,500	Females and children, drawing, carding, &c., 1*s.* 6*d.* to	8	„
200	Children, winding	3	„
100	Bleachers, dressers, clerks, &c., at various wages.		

"The sum paid in wages, during 1844, was about 165,000*l.* The materials used in that year, were 40,000 lbs. raw silk; value 30,000*l.*
„ „ 600,000 lbs. „ cotton „ 25,000*l.*
The finished goods were of the value of 350,000*l.*, viz.:—cotton goods, 200,000*l.*, and silk goods, 150,000*l.*

"The 3200 machines were, in 1844, employed and produced, as follows:—

Machines.		lbs.	Yarn.	s.	d.		£.	Value in Rough Goods. £.
500	Common plain cotton net, using	570,000	No. 120 at	4	6	per lb.	128,250	250,000
200	Finer ditto . . . . . „	120,000	200	10	0	„	60,000	100,000
100	Brussels' ground ditto . . „	50,000	250	18	0	„	45,000	75,000
600	Expensive fancies, ditto . „	240,000	190	10	0	„	120,000	450,000
300	Plain silk net							300,000
50	Fancy ditto							50,000
1,750	Steam-power machines.							
850	Cotton fancies . . . . . „	640,000	140	5	6	„	176,000	637,000
250	Cotton quillings . . . . . „	150,000	170	7	0	„	52,500	130,000
300	Plain cotton . . . . . „	180,000	180	8	0	„	72,000	150,000
50	Silk fancies							37,000
1,450	Hand-machines .	1,950,000					653,750	2,179,000
	Embroidering							330,000
	Finishing, sale expenses, interest, and profits							486,000
	Produce of plain-finished goods						1,205,000	
	„ fancy and embroidered ditto . . .						1,790,000	
	Total returns of bobbin-net manufacture, 1844							£2,995,000

Among the machines employed in making fancy goods, there were about 120 platt machines, and 200 Mechlin machines, to which the jacquard frame was attached.

The persons employed in making, finishing, &c., the above, and their rates of wages, were as follows:—

5,800	Machine-hands, viz.:—800 youths,	at 10s. per week.
	1,000 young men	15s. „
	2,000 men . .	18s. „
	1,200 „ . .	24s. „
	400 „ . .	30s. „
	300 „ . .	35s. „
	100 „ . .	40s. „
	Total . . . 5,800	
50	Engine-men	at 25s. per week.
50	Stokers	15s. „
200	Warpers	25s. „
2,900	Threaders and winders (boys)	5s. „
650	Smiths, moulders, &c.	30s. „
150	Point, guide, &c., makers	25s. „
8,400	Menders of rough goods (females)	4s. „
240	Clerks and warehousemen	40s. „
620	Single machine owners and overlookers . .	40s. „
50	Gassers	25s. „
80	Bleachers	25s. „
70	Dressers' overlookers	40s. „
500	Female dressers	10s. „
2,000	Corders, drawers, &c. (children)	5s. „
2,000	White menders and folders	10s. „
180	Porters, &c.	18s. „
50	Carters	15s. „
25	Designers	40s. „
25	Readers in	15s. „
50,000	Embroiderers, when employed	5s. to 6s. „
50	Travellers at 120*l.* a-year each.	

The produce of the manufacture passes through the hands of about 100 firms, all of whom, except two, are resident in Nottingham.

	lbs.	£.
The raw cotton wool used was about	2,500,000,	cost 230,000
The raw silk used	125,300 „	130,000

For a small part of the goods made, cotton is used, spun into 460 hanks to the pound weight, the price of which is 12*l.* 16*s.* per lb.

About 730	machines	are in the West of England.
„ 310	„	Derbyshire.
„ 60	„	Leicestershire.
„ 2,100	„	Nottingham and its immediate vicinity.

About three-fifths of the goods made are consumed within the kingdom.

Various estimates have been formed concerning the extent and value of the cotton manufacture in this kingdom. Mr. Dugald Bannatyne, in the Supplement to the "Encyclopædia Britannica," and Mr. M'Culloch, in the second edition of his "Dictionary of Commerce," have both estimated the value of goods annually manufactured at the sum of thirty-four millions, and Mr. M'Culloch estimates the capital employed at the same sum, viz.:—

	£.
Capital employed in the purchase of the raw material .	4,000,000
„ „ „ payment of wages	10,000,000
„ invested in spinning-mills, power and hand-looms, warehouses, stocks in hand, &c. . .	20,000,000
	£ 34,000,000

The value of the goods annually produced is made up, according to Mr. M'Culloch's estimate, as follows:—

	£.
Raw material, 240,000,000 lbs. at 7*d.* per lb.	7,000,000
Wages of 800,000 weavers, spinners, bleachers, &c., at 22*l.* 10*s.* a-year each	18,000,000
Wages of 100,000 engineers, machine-makers, smiths, masons, joiners, &c., at 30*l.* a-year each	3,000,000
Profits of the manufacturers, wages of superintendence, sums to purchase the materials of machinery, coals, &c.	6,000,000
	£ 34,000,000

In the latest edition of the Commercial Dictionary (1849), Mr. M'Culloch gives the sum of forty-seven millions as the total estimate of the capital employed in the manufacture, and of thirty-six millions as the value of the goods annually made, and in arriving at those totals, makes a somewhat different division of the sums under their different heads, thus:—

	£.
Capital employed in the purchase of the raw material .	4,000,000
„ „ „ payment of wages	8,000,000
„ invested in spinning-mills, &c.	35,000,000
	£ 47,000,000

	£.
Raw material, 500,000,000 lbs., at 5*d.* per lb. . . .	10,000,000
Wages of 542,000 spinners, weavers, bleachers, &c., at 24*l.* a-year each	13,000,000
Wages of 80,000 engineers, machine-makers, smiths, masons, joiners, &c., at 50*l.* a-year each	4,000,000
Profits of the manufacturers, wages of superintendence, sums to purchase the materials of machinery, coals, &c.	9,000,000
	£36,000,000

Mr. Baines, who was at considerable pains to ascertain the correctness of the earlier estimates, has given the following statement, somewhat different in its details, but arriving substantially at the same result as was given by Messrs. Bannatyne and M'Culloch:—

Extent and Value of the British Cotton Manufacture in 1833.

Cotton wool imported		lbs. 303,656,837
„ consumed in the manufacture		282,675,200
Yarn spun (deducting 1½ oz. per lb. for loss)		256,174,400
Number of hanks spun (averaging 40 to the lb.) . hanks		10,246,976,000
Length of yarn spun (840 yards to the hank) . . miles		4,890,602,182
Value of the cotton wool consumed, at 7*d.* per lb. . . .		£8,244,693
Value of the cotton exports—goods . . .	£13,754,992	
„ „ „ yarn . . .	4,704,008	
	£18,459,000	
Value of manufactures consumed at home .	12,879,693	
Total value of the manufacture		£31,338,693
Capital employed in the manufacture		34,000,000
Quantity of cotton goods exported in 1832:—		
White or plain cottons . . . . yards	259,493,096	
Printed or dyed cottons . . . „	201,552,407	
		461,045,503
Number of persons supported by the manufacture . . .		1,500,000
„ operatives in the spinning and weaving:—		
Factories—in England	200,000	
„ Scotland	32,000	
„ Ireland	5,000	
		237,000
Wages earned by the factory operatives		£6,044,000
Power moving the factories—steam	33,000 horses.	
„ „ „ water	11,000	
	horse power.	44,000
Number of spindles		9,333,000
„ power-looms		100,000
„ hand-loom weavers		250,000
Wages earned by ditto		£4,375,000

It is only within the last twenty-five years that the silk manufacture can be said to have been firmly established in this country. Silk goods have, indeed, been made in England since the time of Edward the Third, and at various times measures intended to act for the protection of the manufacturers have been passed by the legislature. With this view, the importation of silk goods manufactured in other countries was strictly

prohibited in 1765, and this system continued in force during a long series of years, such goods being expressly excluded from the benefit of the treaty of commerce concluded with France in 1786.

By this prohibitory law, the English silk manufacturers were legally secured in the exclusive possession of the home market, from which, in the then imperfect condition of the manufacture, they would otherwise have been driven by the superior fabrics of foreign looms. Protected trades are, almost invariably, carried on without that regard to economy in the processes which is necessary, in order to provide for their extension, by bringing the protected article within the reach of a larger number of consumers. Hence it arose that silk goods came to be looked upon as mere luxuries, the use of which must be confined to the richer classes: and this state of things was aggravated by their being thence considered fit objects of taxation. Heavy duties were imposed upon the importation of raw and thrown silk; the manufactured goods made of a material, the cost of which was thus enhanced, continued beyond the reach of the multitude, and the manufacturers were consequently liable to considerable and violent vicissitudes from every change of fashion. On the other hand, those manufacturers feeling themselves secure in the legal monopoly of the home market, were without the necessary stimulus to improvement, and additional temptations were consequently held out to the smuggler to introduce the superior prohibited goods of France. The slow progress made in this branch of manufacture in England, under this system of duties and restrictions, may be seen from the following table of the quantities of raw and thrown silk imported at various times into the kingdom, from the year 1765, when the prohibition of foreign silk goods was enacted, until the end of 1843.—See page 215.

During all the period embraced in this table, up to 1824, the silk trade of England was one continued alternation of prosperity and distress. That the former condition prevailed is proved, however, by the increasing amount of the manufacture, comparing one period with another in the course of years. In 1824 the system here described was wholly changed. The high duties of 5*s.* 6*d.* per lb. imposed upon raw silk, and of 14*s.* 8*d.* per lb. upon thrown silk, were reduced; the former to 1*d.*, and the latter to 7*s.* 6*d.* per lb. These rates were afterwards further reduced; that on raw silk to 1*d.*, and that on thrown silk to 3*s.* 0*d.* per lb.: a regulation of the Custom-house permitting the latter duty to be drawn back upon the exportation of the goods into which foreign thrown silk is converted: and in 1845 the duties on importation were wholly repealed. In 1824 the system of prohibition against the importation of foreign manufactured silk goods was prospectively repealed, and a scale of duties adopted, under which such goods might be

imported; but in order to afford the silk manufacturers the opportunity of disposing of their stocks of goods already made, and of otherwise preparing for foreign competition, such importations were not allowed to take place until after the 5th of July, 1826.

AVERAGE IMPORTATION.

	Raw.	Waste.	Thrown.	Total.
	lbs.	lbs.	lbs.	lbs.
1765, 6, and 7, commencement of prohibition	352,000	..	363,000	715,000
1785, 6, and 7, twenty years after prohibition	544,000	..	337,000	881,000
1801 to 1812	760,000	..	350,000	1,110,000
1815, 16, and 17, first years of peace, and 50 years after prohibition was commenced	1,095,000	27,000	293,000	1,415,000
1821, 22, and 23, last three years prior to the change of system	1,970,000	74,000	355,000	2,399,000

Years.	Raw.	Waste.	Thrown.	Total.
	lbs.	lbs.	lbs.	lbs.
1814	1,504,235	29,234	586,505	2,119,974
1815	1,069,596	27,971	377,822	1,475,389
1816	873,414	4,162	210,758	1,088,334
1817	1,343,051	49,055	294,553	1,686,659
1818	1,444,881	86,940	391,166	1,922,987
1819	1,446,097	71,331	331,125	1,848,553
1820	1,622,799	94,883	309,953	2,027,635
1821	1,864,513	105,047	360,248	2,329,808
1822	1,993,764	64,921	382,878	2,441,563
1823	2,051,895	52,362	363,864	2,468,121
1824	3,414,520	133,257	463,271	4,011,048
1825	2,848,506	195,910	559,642	3,604,058
1826	1,964,188	..	289,325	2,253,513
1827	3,759,138	..	454,015	4,213,153
1828	4,162,550	..	385,262	4,547,812
1829	2,719,962	..	172,239	2,892,201
1830	3,771,969	485,013	436,535	4,693,517
1831	3,035,832	762,258	514,240	4,312,330
1832	3,391,721	651,594	329,932	4,373,247
1833	3,838,795	654,381	268,367	4,761,543
1834	3,346,751	1,009,932	165,768	4,522,451
1835	4,151,008	1,382,872	254,578	5,788,458
1836	4,239,254	1,524,968	294,201	6,058,423
1837	3,520,105	867,456	211,298	4,598,859
1838	3,595,816	952,305	242,135	4,790,256
1839	3,409,754	1,027,547	228,643	4,665,944
1840	3,794,466	736,649	288,147	4,819,262
1841	3,146,705	1,343,815	266,651	4,757,171
1842	3,856,867	1,424,192	363,524	5,644,583
1843	3,554,904	1,482,880	333,602	5,371,386
1844	3,918,282	1,761,424	405,927	6,085,633
1845	4,058,737	1,406,720	483,706	5,949,163
1846	3,968,391	887,936	392,267	5,248,594
1847	3,571,451	1,150,352	257,648	4,979,451
1848	4,135,335	1,040,704	1,027,353	6,203,392
1849	4,411,263	1,375,808	482,108	6,269,179

In the years 1826 to 1829 the waste is included with the raw silk.

An immediate and great increase was made in the consumption of silk goods by this reduction in the cost of the material. Every throwing-mill and every loom was put in constant employment, and a great increase was made in the number of these establishments. The number

of throwing-mills in different parts of the country was raised from 175 to 266, and the number of spindles from 780,000 to 1,180,000; yet notwithstanding this additional productive power, it was not possible for the throwsters to keep pace with the demands of the weavers, who were frequently kept waiting during whole months for silk to enable them to complete the orders which they had in hand.

This full tide of prosperity was checked by the commercial panic which occurred at the close of 1825; and as the admission of foreign-made silk goods first took place during a time of general depression, a great clamour was raised on the part of the home manufacturers against the relaxation, which was said to be the chief, if not the only cause of the distress that had overtaken the trade. This distress, however, soon passed away, so that in the year 1827 a larger quantity of silk was manufactured in this country than had ever before passed in an equal time through our looms. It is not by selecting a single year that a proper judgment can be formed upon such a subject, but the foregoing table, which details the importations of thirty-six years, ten of which were years of unqualified prohibition, is sufficiently extensive to afford means for deciding the degree of advantage which has attended the relaxation. It will be seen from this table, that, in the ten years preceding 1824, the quantity of raw and thrown silk used by our manufacturers amounted to 18,823,117 lbs., being an average of 1,882,311 lbs. per annum; that, in the ten years immediately following the change of system, the quantity used was 36,780,009 lbs., or 3,678,001 lbs. per annum, being an increase over the average of the former period of 95 per cent.; and that, in the sixteen years ending with 1849, the consumption was 66,376,645 lbs., or 4,148,540 lbs. per annum, being an increase of 120 per cent. upon the quantity used under the restrictive system.

It is further remarkable that, notwithstanding the great increase in the quantity of silk employed in our looms, the quantity of thrown silk imported has not at all augmented during the last sixty years, but, on the contrary, has sensibly diminished.* The spur of competition has driven forward the manufacture in both its branches. Improved machinery has been introduced into our throwing-mills, the effect of which has been to lessen most materially the cost of the process; and, by the adoption and improvement of the ingenious machinery of Jacquard, our weavers are now enabled to produce fancy goods, the quality of which is, with a few exceptions of little importance, fully equal, and, as regards some sorts superior, to the quality of goods made in France, although the cost of production is not yet reduced to the level of that country.

* An exception to this remark is furnished by the importations of 1848, when, owing to the troubled state of the continental seats of the silk manufacture, England afforded the only market to which foreign throwsters could with safety send their goods.

The charge made by English throwsters, previous to 1824, for converting raw silk into organzine was about 10*s.* per lb. At that time the duty imposed upon foreign organzine was 14*s.* 8*d.*, or 9*s.* 2*d.* beyond the duty upon raw silk, and yet a much larger proportion of the material used in our silk looms was then thrown abroad than has since been the case. In the ten years preceding 1824, it will be seen that the weight of thrown silk imported was equal to 23¾ per cent. of the weight of raw silk, whereas the quantity imported in this state of preparation during the ten years ending with 1844, has not exceeded 7¼ per cent. of the weight of the silk thrown in the mills of this country; and at this time we are exporters of British thrown silk to Germany, thus proving the ability of our throwsters to meet their Continental rivals in third markets.

Now that our throwsters have been for more than twenty years exposed to competition with foreigners, they have succeeded in bringing down their charge from 10*s.* to from 3*s.* to 5*s.* per lb., the rate depending upon the quality of the silk. The better the quality the lower the charge: a fact which arises chiefly from the throwster making good the waste which occurs in the process, and which is greatest when the quality of the silk is worst.

When the prohibition to the importation of foreign silk goods was removed, a duty was imposed of 30 per cent. *ad valorem*, which was soon after altered to specific rates per pound, so calculated upon different kinds of goods as to be equal, in most cases, to 30 per cent. upon the presumed value, this rate being assumed as the *maximum* of protection which in any case it was desirable to afford to the English manufacturers. Apart from all considerations of a *maximum* as between the consumers and manufacturers in this country, however, it was found impossible to adopt any higher scale of protection, on account of the encouragement which would thereby be given to smugglers, and, in fact, while arranging the specific duties chargeable on the weight of the goods, it was on this account found necessary to fix the rate upon plain goods on a scale equal to no more than 25 per cent. on the value, while the higher per centage was retained upon other goods, the smuggler's charge on which was higher. The reason why this charge was less upon plain than upon fancy fabrics was this—the latter, being made to answer the immediate demands of ever-varying fashion, were required by the purchasers to be delivered to them without delay, while plain goods, which would be equally valuable at all times, could be kept back by the smuggler to a more favourable opportunity for eluding the government officers.

For some time before, and after the opening of our markets to the fabrics of other countries, it was firmly believed, and loudly asserted, by many persons experienced in the trade, that such a measure would bring certain ruin upon the silk manufacturers of England, who, being accus-

tomed to work for only the higher ranks of society, had constantly experienced the evils attendant upon a limited market, and had been kept in dread of competition from without; the successful adventures of contraband dealers having, under such circumstances, been frequently productive of temporary stagnations, which involved the manufacturers and their workmen in distress. The experience of twenty-five years has now served to show how groundless were these fears; that by reducing the prices of their goods, which they were enabled to do through the reduction of the duty and the improvements in their machinery, the market would be so extended as to include among their customers a far larger part of the population; and that, stimulated by the rivalry of foreign manufacturers, such improvements would be effected in the quality of our fabrics, as would fit them for successful competition with the most beautiful productions of foreign looms. It is strictly correct to assert, that with free permission to import upon even a high scale of duties, our silk manufacturers suffer less at present from foreign competition, than they did in the days of prohibition, when the quantity of smuggled goods amounted to only a small proportion of that now legally imported. In 1810, when the smuggler's difficulties were increased by the war, the quantity of contraband silks brought into consumption in this country was felt to be so injurious to the manufacturers, that they formed themselves into an association for the prevention of smuggling. Again, in 1818 and the following year, numerous petitions were presented to Parliament by the silk-weavers of Spitalfields and of Coventry, complaining of this illegal competition, and stating that, by means of it, "The demand for manufactured goods had for some time past so decreased, as to afford serious ground of alarm to the manufacturers, and to threaten the existence of the silk manufacture of this country." In one of these petitions, it was stated, that operative weavers who used to earn from 30*s.* to 40*s.* per week, were at that time able to earn no more than 10*s.* or 11*s.*

The fact last stated was by no means peculiar to the time embraced in the petition. The system under which the trade had been regulated for more than half a century had familiarized the country with the complaints of the silk-weavers, who were constantly liable, on any change of fashion, to be thrown out of employment; and the high rate of whose wages when fully employed, being unaccompanied by prudent preparation for a fall in wages, only served, by multiplying their wants, to render the reverse more distressing when it came.

Since the year 1824, when the shackles were partially removed from the trade, the silk manufacture in all its branches has spread itself into various districts, and is conducted upon a scale, and according to principles which admit of so great a degree of economy, as not only to place the products of our silk looms within the reach of the humbler classes

of the community in this country, but to enable us successfully to compete in other markets with goods produced in foreign countries. The important reduction in the duties upon foreign silk goods which was effected by the Government in 1846. must tend to further improvement in the same direction. The declared value of British manufactured silk goods, exported from the United Kingdom in each year since 1820, has been as follows:—

Years.	£.	Years.	£.	Years.	£.
1820	371,755	1830	521,010	1840	792,648
1821	374,473	1831	578,874	1841	788,894
1822	381,703	1832	529,990	1842	590,189
1823	351,409	1833	737,404	1843	667,952
1824	442,596	1834	636,419	1844	736,455
1825	296,736	1835	972,031	1845	766,405
1826	168,801	1836	917,822	1846	837,577
1827	236,344	1837	503,673	1847	985,626
1828	255,870	1838	777,280	1848	588,117
1829	267,931	1839	868,118	1849	998,334

It is, perhaps, not the least surprising of the effects which have followed the total alteration of our system in regard to this manufacture, that this country now regularly exports silk goods to a considerable value to France: these exports amounted, in

£.		£.
1831 to 43,462		1842 to 181,924
1832 „ 75,187	and were increased in	1843 „ 148,222
1833 „ 76,525		1844 „ 159,680
		1845 „ 139,772
		1846 „ 172,424
		1847 „ 171,764
		1848 „ 57,414

orming nearly three-fifths of the exports of those goods made to the whole of Europe. The most considerable part of our export of silks is made to our North American Colonies, the West India Islands, and the United States of America.

The number of silk-mills in the townships of Manchester and Salford, which in 1820 was no more than five, had increased, in 1832 to sixteen.

The following table, given on the authority of the Inspectors of Factories, will show the number and distribution of silk factories, and the number of persons employed in them at the beginning of 1835, and in 1839.—*See* page 220.

Except in the preliminary branch of the manufacture—throwing—it has not hitherto been found practicable to apply machinery to any great extent for simplifying the processes of manufacturing the finer kinds of silk goods, or for economizing the cost of their production. For this reason, the improvements effected in the quality of silken fabrics are more the result of individual effort, than the improvements in those other branches of manufacture to which mechanical invention has been so successfully applied in this country. Among the causes to which the continued superiority of French silk weavers, in some articles

Number of Silk Factories in operation in the different Parts of the United Kingdom, with the Number and Ages of the Persons employed therein in 1835.

COUNTIES.	Number of Factories.		Between 8 and 12 years.		Between 12 and 13 years.		Between 13 and 18 years.		Above 18 years.		Total Number of Persons employed.		
	At Work.	Empty.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
ENGLAND.													
Berks	3	..	10	36	6	16	7	69	15	66	38	187	225
Bucks	2	..	17	48	6	19	12	41	2	12	37	120	157
Chester	88	24	1,124	1,428	364	426	1,323	1,876	1,757	2,408	4,568	6,138	10,706
Derby	15	..	162	142	73	124	185	449	466	1,124	886	1,839	2,725
Devon	4	..	24	75	4	27	9	126	10	221	47	449	496
Dorset	5	..	4	70	2	20	1	70	14	101	21	261	282
Essex	8	..	49	155	27	107	69	532	90	498	235	1,292	1,527
Gloucester	2	..	4	32	..	4	1	28	2	13	7	77	84
Hants	2	..	9	44	5	21	6	68	29	116	49	249	298
Herts	7	..	193	237	57	77	120	222	64	148	434	684	1,118
Kent	1	..	..	6	..	1	..	12	..	23	..	42	42
Lancaster	23	..	341	784	202	365	405	1,256	631	1,054	1,519	3,459	5,038
Norfolk	4	..	5	70	2	125	19	440	99	529	125	1,164	1,289
Northampton	1	..	..	..	no return.		..	..	..	..	..	..	..
Nottingham	3	..	55	28	18	9	37	47	20	122	130	206	336
Oxford	1	..	2	3	2	..	3	8	3	21	10	32	42
Somerset	23	..	231	309	55	125	95	471	53	551	434	1,456	1,890
Stafford	11	1	146	206	40	78	108	317	264	304	558	905	1,463
Suffolk	1	..	..	6	..	13	..	50	1	40	1	109	110
Surrey	2	..	9	13	..	..	9	43	17	34	35	90	125
Warwick	5	..	9	6	5	8	23	28	27	25	64	67	131
Wilts	4	..	8	71	2	25	15	148	9	179	34	423	457
Worcester	8	..	33	66	2	31	4	55	18	79	57	231	288
York, W. Riding	8	..	23	36	66	53	145	190	418	187	652	466	1,118
Total, England	231	25	2,458	3,871	938	1,674	2,596	6,546	4,009	7,855	10,001	19,946	29,947
Wales	..	..	..	..	..	..	..	..	..	..	..	..	..
Scotland	6	..	28	52	14	37	40	244	103	168	185	501	686
Ireland	1	..	..	2	..	..	..	25	2	20	2	47	49
Total, United Kingdom	238	25	2,486	3,925	952	1,711	2,636	6,815	4,114	8,043	10,188	20,494	30,682

Statement of the Number and Power of Silk Factories in operation in different parts of the United Kingdom, with the Number and Ages of Persons employed therein in the Year 1839.

	England.		Wales.		Scotland.		Ireland.		United Kingdom.	
Mills at Work	263		..		5		..		268	
„ Empty	23		..		..		..		23	
	E.	H.P.	E.	H.P.	E.	H.P.	E.	H.P.	E.	H.P.
Steam Power	201	2,309	..	..	6	148	..	..	207	2,457
Water Power	109	922	..	..	..	..	..	..	109	922
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Persons under 10 years	1,028	1,457	..	..	3	4	..	..	1,031	1,461
„ 10 to 11 „	786	1,154	..	..	3	15	..	..	789	1,169
„ 11 „ 12 „	793	1,218	..	..	4	18	..	..	797	1,236
„ 12 „ 13 „	752	1,327	..	..	5	37	..	..	757	1,364
„ 13 „ 14 „	1,005	1,835	..	..	33	63	..	..	1,038	1,898
„ 14 „ 15 „	787	1,667	..	..	15	49	..	..	802	1,716
„ 15 „ 16 „	573	1,672	..	..	14	47	..	..	587	1,719
„ 16 „ 17 „	398	1,523	..	..	8	50	..	..	406	1,573
„ 17 „ 18 „	341	1,460	..	..	11	44	..	..	352	1,504
„ 18 „ 19 „	290	1,409	..	..	9	48	..	..	299	1,457
„ 19 „ 20 „	248	1,280	..	..	8	43	..	..	256	1,323
„ 20 „ 21 „	250	1,120	..	..	3	28	..	..	253	1,148
„ 21 and upwards	3,396	5,701	..	..	100	101	..	..	3,496	5,802
Total	10,647	22,823	..	..	216	547	..	..	10,863	23,370
	33,470				763				34,233	

of their manufacture, must be attributed, may be instanced the kind of education which they receive, and by means of which so many among those who are engaged in the labour of weaving—an operation which among us is mere drudgery—are enabled to contribute to the perfecting of their art, by the invention of new patterns. As regards the texture only of silk fabrics, English-made goods are now fully equal to the best that are produced by our neighbours. The greater cheapness of the necessaries of life in France, as compared with England, gives an advantage, in point of price, to the French weaver over his English competitor; and this advantage is of course the greater in those descriptions of goods into the cost of which labour enters in the greatest proportion—such as gauzes, and other light and fancy fabrics. We have seen, however, that as regards other kinds of silk goods, our manufacturers are already enabled to compete with their formidable rivals in markets which are equally open to both, and that we are, in fact, exporting continually the produce of our silk-looms to France itself.

It will scarcely be affirmed that, in this respect, the manufacturers of England would have stood in so advantageous a position, had the old prohibitory system been maintained. Up to the very moment of the legal admission of foreign silk goods no improvement was perceptible in the quality or fashion of our own; by the most cursory glance, the

difference between the fabrics could be distinguished, and yet, notwithstanding the facility thus afforded for the detection of contraband goods, the ingenuity of the smuggler was at all times successful to insure their introduction; and this irregular competition was the more ruinous, as the foreign goods had not been subjected, in the country of manufacture, to the heavy impost then placed upon the raw material in England. It was a bold measure on the part of the government of that day, in the face of so much prejudice as existed, to remove the prohibition to import foreign silk goods, which prohibition had always been declared indispensable to the existence of the manufacture in England. The good effect of the change was made immediately apparent by the increased quantity of the material employed; and at the present time it may be affirmed that, through the extension of the use of silks to nearly all classes, the manufacture is rendered in a great measure safe from the ruin with which it was formerly threatened at every change of fashion. Its condition would long since have been still more favourable if, instead of the enormous protecting duty of 30 per cent. imposed upon the importation of foreign silk goods, a reasonable rate of duty had been adopted; and even if our silk manufacturers had been left without the so-called "protection" of any duty at all, there does not appear reason to doubt that it would not only have stood its ground among our principal branches of industry, but that the skill of our artisans would have enabled them successfully to rival those of other countries.

If there be any foundation for this assertion, the existing "protection" must be considered exceedingly costly to the nation. It enhances by the whole rate of the import duty the price of all the goods made at home, and is therefore equal to a yearly tax of nearly four millions of money levied upon the community without yielding any proportionate advantage to the Exchequer, or even to the trade for the supposed benefit of which it is kept up. That English-made silk goods *are* actually dearer by all the amount of the duty than the like goods of foreign make, is proved by the fact of large importations of such goods being made from abroad. That but for the enervating effect of the protection they *need* be dearer, it would be very difficult to show. We have the raw material, one quality with another, as cheap as our rivals can procure it. We have better machinery, capital in abundance, and manufacturing skill and commercial combinations which, applied to unprotected branches of industry, set those of all other countries at defiance. If we are behind them in any respect, it is in the possession of taste in the invention of patterns and the combination of colours; but that this want of taste is not inherent in the people, is proved by the fact, that the handsomer imported designs of the French manufacturers are always, as soon as seen, preferred to our own. Make it apparent to the English manufacturer that he must enter the field of competition

on equal terms with his rival, and this disadvantage would soon be overcome.

There is another great evil attendant upon the present high rates of duty. These rates being beyond the cost of smuggling, a very large proportion of the silk goods shipped from France for England have uniformly found their way into use without passing through the Custom-house. The following statement shows the extent to which this contraband trade has been carried on since the markets of England were opened to foreign manufacturers. In the course of seventeen years, from 1827 to 1843, fifty parts in one hundred of the silk goods shipped from France to England are thus seen to have been smuggled.

Years.	Exported from France to England.	Entered at Custom-houses in England.	Quantity shipped more than entered.	Centesimal Proportions.	
				Entered.	Not Entered.
	lbs.	lbs.	lbs.		
1827	224,880	104,040	120,840	46·26	53·74
1828	335,051	156,216	178,835	46·62	53·38
1829	211,842	115,918	95,924	54·72	45·28
1830	289,034	119,826	169,208	41·45	58·55
1831	303,642	149,187	154,455	49·13	50·87
1832	312,877	146,665	166,212	46·87	53·13
1833	351,085	148,196	202,889	42·21	57·79
1834	317,508	175,562	141,946	55·29	44·71
1835	298,780	168,772	130,008	56·45	43·55
1836	283,646	179,977	103,669	63·45	36·55
1837	268,164	166,723	101,441	62·17	37·83
1838	393,085	244,626	148,459	62·23	37·77
1839	505,236	255,245	249,991	50·52	49·48
1840	625,317	267,477	357,840	42·77	57·23
1841	624,269	254,120	370,149	40·70	59·30
1842	503,278	250,306	252,972	49·73	50·27
1843	484,438	276,256	208,182	57·02	42·98
	6,332,132	3,179,112	3,153,020	50·20	49·80

The duty received on 3,173,676 lbs. of silk manufactures during the above 17 years amounted to 3,136,091*l.*, which is at the rate of 19*s.* 9*d.* per lb. During the same period, the regular importations from France amounted to 3,179,112 lbs. weight, which is about equal to the whole quantity on which duty was paid. The sum received, if collected upon the whole quantity shipped from France to England, would have been equal to a very small fraction less than 10*s.* per lb. The trade of the smuggler would, in all probability, have been prevented, as regards silk goods, if the duty had been fixed at 10*s.* per lb., which would still have been a very high protecting duty, and the revenue would have been as great at the lower as it has proved at the higher rate, while the gain to the consumers in England would have been 9*s.* 9*d.* per lb. in the price of the manufactures produced and imported. These have amounted to 79,217,862 lbs., including all qualities, which gives a sum of 38,618,708*l.* lost to the great bulk of the community in 17 years, through the

operation of excessive duties placed for the supposed benefit of only one branch of manufactures, and which those engaged in it have continually declared to be in a condition of adversity.

In 1846 a considerable abatement was made in the rates of duty chargeable on foreign silk manufactures, one effect of which change has been to bring the regular importations more nearly into agreement with the French official accounts, thus:—

Years.	Exported from France to England.	Entered at Custom-house in England for France.
	lbs.	lbs.
1846	405,222	410,773
1847	480,308	418,433
1848	715,323	716,278

The linen manufacture has very long been prosecuted in England, and about the end of the seventeenth century was indirectly encouraged in Ireland by an act of legislative oppression, such as it would not be possible to enforce in this country at the present day.

The woollen manufacturers of England, alarmed at the rapid progress then being made in Ireland in that branch of industry, induced the Houses of Parliament to interfere with the king (William III.) for its suppression. In his answer to their address, the king made the following promise:—"I shall do all that in me lies to discourage the woollen manufacture in Ireland, and encourage the linen manufacture, and to promote the trade of England." Nor was this an empty promise. Through the interference of the king with the Irish Houses of Parliament, an Act was passed prohibiting the exportation of all woollen goods from Ireland, except to England; an exception which could not operate to the relief of the Irish manufacturer, since prohibitory duties were already laid against their importation into this country.

As some compensation for this act of injustice, various regulations were at different times made for the encouragement of the linen manufacture in Ireland; although it is doubted whether those regulations did, in reality, effect anything towards the establishment of the manufacture upon a healthy footing. Among other modes of encouragement, a bounty was paid upon the exportation of linen from Ireland, which was in force for more than a century, and ceased only in 1830.

It is not possible to trace, with any certainty, the growth of the linen manufacture in either part of the kingdom. Cotton and silk being productions of foreign growth, the quantities which pass through our custom-houses form, of course, a correct measure of the growth of those manufactures as far as quantity is concerned; but flax is a production of our own soil, as well as an article of foreign commerce, and the quantity imported from abroad gives therefore only an imperfect test of the quantity of linen produced in our looms. The immense extension of our cotton fabrics has necessarily limited the growth of our linen

manufacture, yet there is every reason for believing that it has, notwithstanding, been very considerable.

The following table will show the quantities of linen goods which were exported from Ireland in different years, from 1800 to 1825; subsequently to which year no account has been taken at the custom-houses of either England or Ireland, of the commercial intercourse between the two parts of the kingdom.

Years.	To Great Britain.	To Foreign Parts.	Total.
	Yards.	Yards.	Yards.
1800	31,978,039	2,585,829	34,563,868
1802	33,246,943	2,368,911	35,615,854
1804	39,837,101	3,303,528	43,140,629
1806	35,245,280	3,880,961	39,126,241
1808	41,958,719	2,033,367	43,992,086
1810	32,584,545	4,313,725	36,898,270
1812	33,320,767	2,524,686	35,845,453
1814	39,539,443	3,463,783	43,003,226
1815	37,986,359	5,496,206	43,482,565
1816	42,330,118	3,299,511	45,729,629
1817	50,288,842	5,941,733	56,230,575
1818	44,746,354	6,178,954	50,925,308
1819	34,957,396	2,683,855	37,641,251
1820	40,318,270	3,294,948	43,613,218
1821	45,519,509	4,011,630	49,531,139
1822	43,226,710	3,374,993	46,601,703
1823	48,066,591	3,169,006	51,235,597
1824	46,466,950	3,026,427	49,493,377
1825	52,559,678	2,553,587	55,113,265

It will be seen from the next statement, that a large proportion of the exports of linen from Ireland to Great Britain has been re-exported to foreign countries.

British and Irish Linen and Sailcloth exported from the United Kingdom, in each year from 1820 *to* 1833.

Years.	British Linen.	Irish Linen.	British Sailcloth.	Irish Sailcloth.
	Yards.	Yards.	Ells.	Ells.
1820	24,066,914	12,455,419	1,226,335	18,117
1821	28,199,765	15,408,561	1,339,164	12,153
1822	33,762,229	15,931,939	1,259,919	16,039
1823	34,624,512	16,765,928	1,206,715	32,239
1824	43,879,893	17,933,195	1,593,291	66,185
1825	33,643,655	16,023,268	1,879,506	51,104
1826	23,619,428	10,868,407	4,343,924	55,178
1827	38,280,766	14,022,496	2,211,529	52,413
1828	44,555,341	11,924,603	2,962,393	83,903
1829	43,499,268	11,924,918	1,768,093	51,256
1830	46,232,243	13,244,269	1,922,211	32,550
1831	50,799,723	14,738,358	2,928,464	28,185
1832	37,347,193	9,960,347	2,182,367	41,150
1833	51,393,420	9,561,277	2,229,777	48,035

The accounts subsequent to 1833 do not distinguish Irish from British linens. The exports from the United Kingdom from 1834 to 1849 of all kinds of linen goods, and of flax yarn, have been as follows:—

Linen exported from the United Kingdom in each Year, from 1834 *to* 1849.

Years.	Entered by the Yard.		Thread, Tapes, and Small Wares.	Linen Yarn.		Total Declared Value.
	Yards.	Declared Value.	Declared Value.	Pounds.	Declared Value.	
		£.	£.		£.	£.
1834	67,834,305	2,357,991	85,355	1,533,325	136,312	2,579,658
1835	77,977,089	2,893,139	99,004	2,611,215	216,635	3,208,778
1836	82,088,760	3,238,031	88,294	4,574,504	318,772	3,645,097
1837	58,426,333	2,063,425	64,020	8,373,100	479,307	2,606,752
1838	77,195,894	2,717,979	102,293	14,923,329	746,163	3,566,435
1839	85,256,542	3,292,220	122,747	16,314,615	818,485	4,233,452
1840	89,373,431	3,194,827	111,261	17,733,575	822,876	4,128,964
1841	90,321,761	3,200,467	147,088	25,220,290	972,466	4,320,021
1842	69,232,682	2,217,373	129,376	29,490,987	1,025,551	3,372,300
1843	84,172,585	2,615,566	187,657	23,358,352	898,829	3,702,052
1844	91,283,754	2,801,609	223,191	25,970,569	1,050,676	4,075,476
1845	83,401,670	2,830,784	205,586	23,288,725	1,060,566	4,096,936
1846	84,799,369	2,631,809	198,999	19,484,203	875,405	3,706,213
1847	89,329,310	2,759,094	199,757	12,688,915	649,893	3,608,744
1848	89,002,431	2,597,573	205,216	11,722,182	493,449	3,296,238
1849	111,259,183	3,209,539	284,291	17,264,033	732,065	4,225,895

Within the last few years the proportion of Irish linen shipped from England has been continually increasing, owing to the greater facility of intercourse offered by steam vessels, which occasions a larger portion of the general export trade of the United Kingdom to be carried on from the ports of England.

The estimated value of linen goods sold in the different linen markets of Ireland, in each of the years from 1821 to 1824, was stated as follows, on the authority of the Inspectors appointed by the Linen Board in Dublin, and the statement was given in the Appendix to the Report upon the Linen Manufacture of Ireland, made by a Committee of the House of Commons in 1825. There is not any document in existence which brings this information down to a later date.

	1821			1822			1823			1824		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
Ulster . .	2,066,122	16	8	2,127,529	16	4	1,968,180	16	6	2,109,309	10	2
Leinster .	285,354	14	9	336,698	12	0	207,638	18	3	192,888	4	9
Munster .	68,870	13	9	82,202	13	1	95,195	8	3	110,421	0	3
Connaught	117,664	14	0	130,914	7	4	140,856	13	5	168,090	9	7
	2,538,012	19	2	2,677,345	8	9	2,411,871	16	5	2,580,709	4	9

It was not until quite the end of the last century that flax spinning-mills were first erected in the north of England and in Scotland. Before that time the operation of spinning was altogether performed by women in their own dwellings. Up to 1814 the yarn spun in mills was sold to weavers, or to dealers, who acted as middlemen between the spinners and weavers; but at the date last mentioned, some spinners became also manufacturers of linen. It was at a still more recent period that power-weaving was applied to the making of linen fabrics

in England and Scotland, and up to the present moment flax-spinning machinery has not been established in Ireland upon a scale sufficiently large to supply the looms of that country, to which considerable quantities of linen yarn are sent from the spinning mills of Yorkshire.

In Scotland, this branch of manufacture was comparatively small before the peace in 1815. The town and neighbourhood of Dundee has been the scene of a most remarkable increase in the linen manufacture since the time just mentioned. In 1814, the quantity of flax imported into that town for use in the manufactories did not exceed 3000 tons, but in the year which ended 31st May, 1831, the import was more than 15,000 tons, besides upwards of 3000 tons of hemp. The continued progress of the manufacture in this district is shown by the fact that, in the year ending 31st May, 1833, the imports had further increased to 18,777 tons of flax, and 3,380 tons of hemp. The quantity of linen, sailcloth, and bagging, into which this material was made, and which was shipped from Dundee in the same year, amounted to 60,000,000 yards, being probably equal to the entire shipments then made from the whole of Ireland.

The improvements made in the flax-spinning machinery in this country are rendered sufficiently apparent by the following statement, taken from the Official Tables of Revenue, Population, &c., of the United Kingdom (Part III., page 395), in which volume it was inserted on the authority of the oldest and largest establishment for flax-spinning and weaving in Leeds.

Statement of the Prices of Linen Yarn, and of Canvas (No. 37); and of the Wages paid at Leeds for Weaving the same, in each Year, from 1813 *to* 1833, *inclusive.*

	1813	1814	1815	1816	1817	1818	1819
Average Size of an Average Bundle of Yarn, estimated in leas of 300 yards per lb.	11·1	11·1	11·4	11·2	11·4	11·3	11·6
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
Average Selling Price of such Average Bundle of Yarn	28 6	29 5	27 7	21 0	19 10	21 4	18 10
Wages of Weaving a piece of Canvas, No. 37, 36 inches wide, 16 threads warp, 17 weft, per inch	2 8	2 8	2 10	2 8	2 6	2 8	2 8
Selling Price of a piece of Canvas, No. 37	30 0	30 0	28 0	22 0	20 6	21 3	23 0

	1820	1821	1822	1823	1824	1825	1826
Average Size of an Average Bundle of Yarn, estimated in leas of 300 yards per lb.	11·3	12·4	12·6	12·9	17·4	21·5	18·5
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
Average Selling Price of such Average Bundle of Yarn	17 7	16 2	16 8	15 7	13 6	14 4	12 6
Wages of Weaving a piece of Canvas, No. 37, 36 inches wide, 16 threads warp, 17 weft, per inch	2 8	2 8	2 8	2 8	2 6	2 7	2 6
Selling Price of a piece of Canvas, No. 37	23 0	20 6	20 0	21 0	19 0	19 3	18 0

Statement of the Prices of Linen Yarn, &c.—continued.

	1827	1828	1829	1830	1831	1832	1833
Average Size of an Average Bundle of Yarn, estimated in leas of 300 yards per lb.	20·9	22·5	25·	26·6	27·6	31·5	37·1
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
Average Selling Price of such Average Bundle of Yarn	11 0	11 5	10 1	10 10	11 1	10 3	10 9
Wages of Weaving a piece of Canvas, No. 37, 36 inches wide, 16 threads warp, 17 weft, per inch	2 6	2 6	2 6	2 6	2 6	2 6	2 6
Selling Price of a piece of Canvas, No. 37	16 6	15 0	16 0	17 0	19 0	18 6	18 0

Statement of the Weekly Rate of Wages paid in a Flax Spinning Mill near Leeds, in the Year 1832.

	Average. *s. d.*		Average. *s. d.*
66 Children, 9 to 11 years old	3 1½	100 Persons 17 years old	5 10½
160 „ 11 „ 12 „	3 4½	80 „ 18 „	6 6
144 „ 13 „	3 9½	58 „ 19 „	7 4
127 „ 14 „	4 2½	48 „ 20 „	7 9½
113 „ 15 „	4 9½	204 „ 21 „	8 2½
99 Persons 16 „	5 6	„ 21 and upwards	16 7½

The above rates had been nearly stationary during the preceding twenty years.

It will be seen from the foregoing table that the length of a pound of yarn of average fineness was, in 1813 and 1814, only 3,330 yards, and that, in 1833, yarn of the average quality contained 11,170 yards. During that time the price of such average yarn had fallen from 29*s.* 5*d.* to 10*s.* 9*d.* per bundle; so that, taking the quantity into the account, the price of yarn has fallen in twenty years to one-ninth of the price which it bore at the close of the war, the price of the raw material having fallen in the same time about one-half.

The further progress made in the processes of flax-spinning since 1833 is shown by the following figures:—

Years.	Average Size of an Average Bundle of Yarn, estimated in Leas of 300 yards per pound.	Average Selling Price of such Average Bundle of Yarn. *s. d.*	Years.	Average Size of an Average Bundle of Yarn, estimated in Leas of 300 yards per pound.	Average Selling Price of such Average Bundle of Yarn. *s. d.*
1834	39·13	11 5	1842	35·3	9 3
1835	37·81	12 1	1843	37·	7 10½
1836	37·3	12 1½	1844	36·7	6 10½
1837	40·7	10 4	1845	36·	7 9
1838	43·2	10 0	1846	35·6	7 4
1839	40·7	11 6	1847	37·1	7 2
1840	36·	10 9½	1848	30·8	7 4½
1841	36·3	10 2½	1849	28·4	6 7¾

The improvements made in the operation of flax-spinning in England are rendered apparent in a very important manner, by the fact that we are now large exporters of linen yarn to Ireland, and even to France: the earliest shipments to the latter country were made in 1833, and

amounted to only 76,512 lbs.; but the quantity rapidly increased until 1842, when it reached 22,202,292 lbs. In that year the French government, yielding to the representations of their flax-spinners, materially raised the rates of import duty, and our declared exports fell to 13,824,285 lbs. in 1843, and 13,546,757 lbs. in 1844. There is reason to believe that the services of the smuggler have been engaged for making good in part the difference in the quantity, and it is quite certain that the linen manufacture of France has suffered very seriously from the increased price of their material, which has diminished their export trade in linen goods, and limited their sales at home. This export of linen yarn is a new branch of trade, for which we are altogether indebted to the perfection of our spinning machinery. This country had previously been a constant importer of linen yarn, but there is at present every appearance of this state of things being entirely changed. So recently as 1827 our weavers used very nearly four millions of pounds of foreign yarn, but in each subsequent year this quantity has been diminished, until in 1834 it amounted only to about one million and a half of pounds, and in 1844 hardly exceeded one million of pounds. Our principal foreign customer for linen fabrics is the United States of America: the exports to that country in 1848 amounted to 30,930,554 yards, the declared value of which was 859,479*l.*

The following table exhibits a considerable increase in the consumption of foreignq-rown flax during the last ten or fifteen years; but it is probable that the growth of the article in this country has, in the mean time, experienced some diminution. It has been already mentioned that the importations of flax do not afford any accurate test of the growth or extent of the manufacture.

Statement showing the Quantities of Flax imported and consumed in the United Kingdom, in each Year from 1820 *to* 1849.

Years.	Cwts.	
1820	376,170	The duty payable during these years was at the rate of 10*l.* 14*s.* 6*d.* per cwt. on dressed Flax, and 5*d.* on undressed Flax.
1821	491,582	
1822	607,540	
1823	553,599	
1824	739,651	
1825	1,018,837	Duty reduced to 4*d.* per cwt. upon dressed and undressed.
1826	697,488	Do. 3*d.* „ „
1827	896,889	Do. 2*d.* „ „
1828	882,289	Do. 1*d.* „ „
1829	909,709	
1830	955,112	
1831	918,883	
1832	984,869	
1833	1,112,190	
1834	794,272	Duty reduced to 1*d.* per cwt. upon dressed and undressed.
1835	742,665	
1836	1,511,428	
1837	993,654	
1838	1,615,905	
1839	1,216,811	
1840	1,256,322	
1841	1,338,213	
1842	1,130,312	
1843	1,422,992	
1844	1 583,328	
1845	1,418,323	Free.
1846	1,147,092	
1847	1,052,089	
1848	1,463,661	
1849	1,806,786	

Statement of the Number and Power of Flax Factories, in operation in different parts of the United Kingdom, with the Number and Ages of Persons employed therein, in the Year 1839.

	England.		Wales.		Scotland.		Ireland.		United Kingdom.	
Mills at work .	169		..		183		40		392	
„ empty . .	12		..		7		4		23	
	E.	H. P.	E.	H. P.	E.	H. P.	E.	H. P.	E.	H. P.
Steam Power .	123	3,134	..	..	160	3,350	32	928	315	7,412
Water Power .	112	1,131	..	..	91	1,495	37	1,052	240	3,678
PERSONS.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 10 years.	130	98	..	..	22	16	..	9	152	123
10 to 11 „ .	206	164	..	..	22	36	3	14	231	214
11 „ 12 „ .	248	141	..	..	30	37	3	22	281	200
12 „ 13 „ .	228	205	..	..	27	53	12	41	267	299
13 „ 14 „ .	774	970	..	..	878	1,226	350	535	2,002	2,731
14 „ 15 „ .	651	1,103	..	..	653	1,017	441	745	1,745	2,865
15 „ 16 „ .	443	1,093	..	..	391	1,049	269	627	1,103	2,769
16 „ 17 „ .	258	914	..	..	216	920	179	648	653	2,482
17 „ 18 „ .	153	902	..	..	143	903	158	552	454	2,357
18 „ 19 „ .	145	949	..	..	117	1,121	181	744	443	2,814
19 „ 20 „ .	99	803	..	..	80	1,015	100	534	279	2,352
20 „ 21 „ .	114	672	..	..	102	942	97	518	313	2,132
21 and upwards	1,929	3,181	..	..	2,057	4,834	988	1,241	4,974	9,256
Total . .	5,378	11,195	..	..	4,738	13,169	2,781	6,230	12,897	30,594
	16,573				17,907		9,011		43,491	

The finest kind of linen, known under the name of cambric, is imported by us from France. From 30,000 to 40,000 pieces of cambric, including pocket handkerchiefs, are every year introduced; but it appears probable that still further improvements in the manufacturing processes may be effected, which will enable our weavers to produce goods equal to any made in the looms of France; a circumstance which is now at least as probable as the fact would have appeared fifty years ago, that we should ever furnish the natives of India with the finest muslins, instead of being dependent upon their industry for the supply of our markets.

The extent of that part of our linen manufacture which is conducted in factories, and which is the only part as to which statistical details are procurable, upon which full reliance can be placed, will be seen from the following table, compiled from returns made by the Inspectors of Factories, in 1835:—*See* page 231.

It will be observed, on examining the statements already given of the number and ages of persons employed in the cotton, woollen, flax, and silk factories respectively, throughout the kingdom, that the proportion of young persons employed in the silk-mills is much greater than it is in any of the other three branches, and that the proportion of adults is consequently much smaller.

Statement of the Number of Flax Factories in operation in the different Parts of the United Kingdom, with the Number and Ages of Persons employed therein in 1835.

COUNTIES, &c.	Number of Factories at Work.	Between 8 and 12 Years.		Between 12 and 13 Years.		Between 13 and 18 Years.		Above 18 Years.		Total Number of Persons employed.		
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Total.
ENGLAND.												
Cumberland	7	..	1	1	8	4	89	20	116	25	214	239
Derby	2	5	4	7	2	14	16	5	31	31	53	84
Devon	4	..	..	5	5	8	34	17	73	30	112	142
Dorset	21	11	14	26	40	61	202	78	278	176	534	710
Durham	6	2	..	60	27	47	172	90	203	199	402	601
Hants	2	..	2	3	5	4	32	4	41	11	80	91
Kent	1	..	..	..	..	29	15	7	11	36	26	62
Lancaster	18	65	60	265	260	386	811	469	708	1,185	1,839	3,024
Northumberland	2	..	..	6	23	7	68	35	103	48	194	242
Nottingham	1	..	..	7	1	1	..	..	..	8	1	9
Oxford	1	1	..	..	2	2	10	1	..	4	12	16
Salop	1	24	16	45	37	124	173	118	149	311	375	686
Somerset	13	17	13	13	9	42	108	37	128	109	258	367
Westmoreland	4	16	14	11	7	38	79	54	75	119	175	294
Wilts	1	..	..	..	2	..	14	2	6	2	22	24
York, W. Riding	64	333	303	592	735	1,145	2,318	1,593	2,419	3,663	5,775	9,438
N. Riding	4	13	7	7	10	17	51	21	38	58	106	164
Total, England	152	487	434	1,048	1,173	1,929	4,192	2,551	4,379	6,015	10,178	16,193
Wales	..	..	..	..	..	..	..	..	..	..	..	..
Scotland	170	104	175	609	918	1,129	3,064	1,550	5,860	3,392	10,017	13,409
Ireland	25	1	15	125	199	399	1,308	463	1,171	988	2,693	3,681
Total, United Kingdom	347	592	624	1,782	2,290	3,457	8,564	4,564	11,410	10,395	22,888	33,283

The actual proportions in which persons of different ages were employed in each of these four branches of industry, in 1835 and 1839, were as follows:—

	Ages.	Cotton.	Woollen.	Flax.	Silk.
1835	8 to 12	3·7	6·7	3·7	20·9
	12 „ 13	9·3	12·	12·2	8·7
	13 „ 18	29·8	29·8	36·1	30·8
	Above 18	57·2	51·5	48·	39·6
		100·	100·	100·	100·
1839	Under 9 years	..	..	..	2·80
	Between 9 and 13	4·75	12·35	4·05	22·60
	„ 13 „ 18	37·52	39·59	44·00	34·19
	Above 18	57·73	48·06	51·95	40·41
		100·	100·	100·	100·

The proportions in which males and females were employed in 1835 and 1839, were:—

	Cotton.		Woollen.		Flax.		Silk.	
	1835	1839	1835	1839	1835	1839	1835	1839
Males	45·7	43·5	52·5	48·5	31·2	29·6	33·2	31·7
Females	54·3	56·5	47·5	51·5	68·8	70·4	66·8	68·3
	100·	100·	100·	100·	100·	100·	100·	100·

The imperfection of the returns of 1835, in regard to the mechanical power used in factories, did not allow of any precise calculations in regard to the proportions in which that power is used, as compared with the number of persons employed in each branch. The following abstract contains all the information of this nature that can be gathered from the returns given, both in 1835 and 1839, in which latter year the statements are more complete.

Statement showing the Amount of Mechanical Power used in Factories, and the Number of Persons employed in each Branch, in the Years 1835 *and* 1839.

Description of Factories.	Number of Factories, the Power of which is given.	Number of			Horse-power of Steam-Engines and Water Wheels.			Number of Horses, Power actually Employed.	Number of Persons Employed in Factories the Power of which is given.
		Steam Engines.	Water Wheels.	Total.	Steam.	Water.	Total.		
1835									
Cotton	987	1,000	479	1,479	27,433	6,575	34,008	30,698	172,605
Woollen	740	528	462	990	10,300	4,703	15,003	13,536	46,685
Flax	90	55	55	110	1,746	528	2,274	2,204	12,910
Silk	131	118	41	159	1,343	332	1,675	1,460	18,390
Total	1,948	1,701	1,037	2,738	40,822	12,138	52,960	47,898	250,590
1839									
Cotton	1,819	1,641	674	2,315	46,827	12,977	59,804	55,785	259,385
Woollen	1,738	888	1,207	2,095	17,398	10,406	27,804	25,564	86,446
Flax	392	315	240	555	7,412	3,678	11,090	9,585	43,487
Silk	268	207	109	316	2,457	922	3,379	2,977	34,318
Total	4,217	3,051	2,230	5,281	74,094	27,983	102,077	93,911	423,636

From these figures it appears, that the number of persons employed for each mechanical horse-power at each period, was :—

	1815	1839
In Cotton Factories . . .	5⅝	4⅝
„ Woollen „ . . .	3½ nearly.	3½ nearly.
„ Flax „ . . .	5⅞	4½
„ Silk „ . . .	12⅝	11½

The larger proportion in the silk mills might be expected from the greater number of young persons employed therein.

The progress of our textile manufactures during the period of four years will be apparent from the following statement of the increase or decrease in 1839, as compared with 1835, of the number of factories at work or empty, and of the number of persons employed therein, in each division of the United Kingdom :—

	England.		Wales.		Scotland.		Ireland.		United Kingdom.	
	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.
Mills at work—										
Wool . . .	343	..	65	..	22	..	..	5	425	..
Cotton . . .	526	..	..	..	33	..	..	4	555	..
Silk . . .	32	..	..	..	..	1	..	1	30	..
Flax . . .	17	..	..	..	13	..	15	..	45	..
Mills empty—										
Wool . . .	40	..	11	..	5	..	7	..	63	..
Cotton . . .	46	..	..	..	6	..	1	..	53	..
Silk	..	2	..	..	..	..	..	1	..	3
Flax	12	..	..	..	7	..	4	..	23	..
PERSONS EMPLOYED.										
Wool, &c.—										
Under 13 years	..	2,149	74	..	..	478	..	91	..	2,644
13 to 18 „	11,573	..	312	..	1,136	..	..	49	12,972	..
Above 18 „	3,808	..	265	..	913	..	..	152	4,834	..
Total . . .	13,232	..	651	..	1,571	..	..	292	15,162	..
Cotton—										
Under 13 years	..	13,211	..	11	..	2,834	..	385	..	16,441
13 to 18 „	27,028	..	41	..	3,811	..	942	..	31,822	..
Above 18 „	22,268	..	..	171	1,504	..	269	..	23,870	..
Total . . .	36,085	..	..	141	2,481	..	826	..	39,251	..
Silk—										
Under 13 years	..	311	..	..	..	42	..	2	..	355
13 to 18 „	2,255	..	..	..	50	..	..	25	2,280	..
Above 18 „	1,664	..	..	..	69	..	..	22	1,711	..
Total . .	3,608	..	..	..	77	..	..	49	3,636	..
Flax—										
Under 13 years	..	1,641	..	..	..	1,572	..	236	..	3,449
13 to 18 „	1,131	..	..	..	3,180	..	2,803	..	7,114	..
Above 18 „	890	..	..	..	2,880	..	2,769	..	6,539	..
Total . .	380	..	..	..	4,488	..	5,336	..	10,204	..

CHAPTER III.

MANUFACTURES.

WOVEN FABRICS.

Progress in various Foreign Countries.

France — Woollen manufacture — Imports and production of wool — Protection against foreign manufactures — Cotton manufacture — Disadvantages through the duties on foreign coal and iron—Extent of manufacture—Quantity of cotton imported since 1787 —Export of woollen and cotton goods—Silk manufacture—Its extent and progress— Exports—Germany—Cotton manufactures—Prussian commercial league—Russia—Swiss Cantons.

HAVING thus inquired into the progress of this nation, as regards one great class of its manufactures,—woven fabrics, it may be desirable to see in what degree other countries have kept pace with us in the development of the same branch of industry. The materials for such an inquiry are generally scanty and unsatisfactory. Statements are, indeed, frequently put forward to the world from various quarters with an air of confidence, which pretend to give the most ample information upon different branches of this subject, but every one who has been accustomed to collate and compare those statements, has generally found reason to distrust their correctness. It is but seldom, indeed, that documents of this kind are furnished upon competent authority; and where this is wanting, it will always be more safe for the inquirer to depend rather upon collateral circumstances, as to the truth of which no doubt exists, than to rely upon unsupported assertions, however plausibly they may be offered.

The French Government, urged to an alteration of the restrictive system, by which it has sought to foster its manufactures, was induced a few years since to institute an inquiry into the past and present effects of that system, and in the course of that inquiry collected together some documents which bear the stamp of authenticity, and which may therefore be used with confidence in the comparison which it is proposed to make, as to the manufacturing progress of France and England. A considerable number of authentic statements of the same nature have also been collected, with great industry, by Dr. Bowring, and presented to Parliament in his interesting reports on the commercial relations of the two countries; and in recent years, the French Government has published very ample statements of the trade of the kingdom, so that it will hardly

be necessary to have recourse to any unofficial statement in this part of our inquiry.

The woollen manufacture has long been one of the staples of France, and the excellent quality of French cloths has been generally acknowledged. In some branches of the manufacture the French clothiers have taken the lead; and to this day their finer woollens find a market in every quarter of the globe. Under these circumstances, there can be no doubt that the quantity of woollen cloth manufactured in France has increased with the growth of the population; and it appears from a table inserted in the "Enquête," published by the French government, that the quantity of these goods exported has also materially increased during the last half century. These facts are shown by the following statement of the quantity and value of wool imported, and of woollen goods exported, in the years 1787, 8, and 9, and in each year from 1812 to 1848:—

Years.	Wool Imported.		Woollens Exported.	
	Weight.	Value.	Weight.	Value.
	Kilogrammes.	Francs.	Kilogrammes.	Francs.
1787	7,842,085	14,391,500	..	21,811,900
1788	6,780,747	13,544,400	..	23,560,200
1789	6,860,087	17,061,000	..	25,709,000
1812	7,308,380	30,627,885	1,761,281	38,303,193
1813	5,354,455	20,303,973	1,289,517	27,539,642
1814	1,832,472	7,699,057	700,843	13,711,202
1815	2,431,269	5,348,792	1,336,801	38,662,677
1816	5,785,675	8,266,084	2,202,368	68,007,529
1817	5,612,891	16,015,862	1,508,012	49,862,593
1818	9,854,231	25,169,916	1,389,818	44,971,455
1819	3,428,420	10,612,687	1,350,795	40,615,461
1820	4,912,291	8,350,895	1,494,137	43,383,660
1821	6,876,661	11,690,328	1,369,746	39,750,591
1822	9,117,731	15,500,142	1,101,615	40,528,113
1823	5,481,659	9,318,820	1,018,261	33,082,211
1824	4,409,956	7,496,925	1,141,268	36,436,512
1825	4,639,108	7,886,484	1,182,929	37,821,130
1826	6,435,228	10,939,887	982,849	29,848,406
1827	7,381,857	11,130,922	1,029,100	27,369,125
1828	7,586,889	13,390,515	1,058,922	30,025,776
1829	5,749,194	9,275,611	1,196,744	31,606,464
1830	7,214,939	12,871,932	1,029,472	27,690,138
1831	3,836,207	5,253,089	1,050,457	28,088,716
1832	4,621,594	7,861,821	1,434,026	36,306,600
1833	9,305,702	19,139,629	1,546,991	38,098,047
1834	9,220,595	17,914,818	1,542,247	39,437,014
1835	14,844,536	34,218,973	1,576,208	38,366,902
1836	14,165,512	31,890,637	2,018,292	49,187,968
1837	9,999,465	18,997,429	1,670,772	43,428,066
1838	14,926,078	34,177,544	2,297,741	64,400,460
1839	13,612,180	31,937,089	2,299,056	60,588,294
1840	13,456,341	29,987,249	2,325,771	61,072,105
1841	20,323,741	45,897,373	2,511,458	64,595,741
1842	20,951,769	49,240,862	2,402,643	63,169,108
1843	20,603,370	49,807,776	2,566,551	78,910,547
1844	22,784,982	64,722,050	3,207,855	104,007,160
1845	25,761,206	71,145,423	3,183,349	104,931,714
1846	17,017,619	43,004,017	4,307,472	133,814,478
1847	quantity	39,847,223	3,182,660	97,697,836
1848	not stated.	19,835,543	3,498,027	83,221,418

To enable the French clothiers to compete successfully with us in foreign markets, a bounty on exportation is paid by the government equal to 13½ per cent. on the value; which payment is calculated to be equal to the duty imposed upon foreign wool, for the supposed benefit of the agriculturists of that country. The design of that duty was to raise the price of wool of native growth; and it was thence thought necessary to protect the manufacturers against the competition of countries where the raw material is cheaper, by prohibiting the importation of woollen cloths. It may be useful to inquire, in a few words, what has been the effect of this double protection.

It is admitted in the reply made by the Chamber of Commerce of Carcassone, in November, 1834, to the circular letter addressed by the Minister of Commerce to different commercial bodies, in September of that year, that the immediate effect of the imposition of the duty of 33 per cent. on foreign wool proved the very contrary of that which was intended; that, in fact, it lowered the price of native wool from 12 to 15 per cent., which reduction progressively increased, until in 1832 the diminution of value amounted to 25 per cent. The duty has since been reduced to 22 per cent., but without in any respect influencing the price of French-grown wool. The reason for this result, so contrary to the intentions of the legislature, has been thus given:—"Foreign manufacturers, no longer meeting the competition of French buyers in the countries of production, have been able to buy their material of manufacture, at cheaper rates, and consequently have afforded their goods to foreign consumers, previously supplied by France, at a proportionate reduction of price. Deprived of wool of the fine qualities necessary for producing the cloth which before had been made by them for exportation, the French clothiers have had their market limited chiefly to their own country; one consequence of which has been, that their purchases of native wool have been diminished, by the quantity formerly mixed with foreign wool for the production of the cloths exported." According to this view, it was not likely that the growers of wool should be benefited by the duty imposed for their encouragement, and this opinion has been fully borne out by the fact, as already stated. That the manufacturers have not, on their part, profited by the prohibition of foreign woollens, is rendered fully evident by the constant complaints which they have made of a falling off in their trade.

In 1814 protection was continued to the manufacturers, with the understanding that the prohibition should remain for no longer than two years; that time being considered, under the altered circumstances of the commercial world, necessary for the establishment of their prosperity. Twenty years of strict monopoly have since passed, and the complaints of the manufacturers are as pressing as they were in 1814. The reason for this continued state of adversity in regard to branches of industry

for which France enjoys every facility, is thus stated in the Report of Messrs. Villiers and Bowring, on the Commercial Relations between France and England:—"Raw produce being protected, at the demand of the French producer, and all articles necessary to existence at the demand of the French agriculturist, high prices have lessened consumption, while the external demand has been considerably diminished. There are scarcely any protected articles in which France can now sustain a competition with other countries; and the improvement resulting from competition, which is as valuable to the manufacturer as it is to the public at large, is completely checked. The manufacturers themselves, however, have in their turn become the victims; for protection does, in fact, destroy the very market which it intends to monopolize. It has introduced great distress among six millions of inhabitants of the wine districts, who would naturally be large consumers of home produce. In France the agricultural is by far the most numerous class; and if the sale of their produce is prevented by the exclusion of what other countries have to offer in payment, the means of ultimately dealing with the manufacturer are destroyed. To whatever article inquiry is directed, the results will be found analogous."

The cotton manufacture in France labours under a considerable natural disadvantage as compared with that branch of industry in England, arising from the comparatively high price of fuel. Another circumstance, equally unfavourable to the French manufacturer, is the high price of iron, and consequently of machinery. The first of these evils is aggravated by the imposition of a duty on the introduction of coals into that country, for the protection of the owners of forests; and the dearness of iron is chiefly occasioned by a similar fiscal absurdity, for the advantage, first, of the owners of forests, the value of whose property would suffer if encouragement were withdrawn from the iron-masters, who are their customers to a great extent; and, secondly, for the supposed benefit of those iron-masters, who would be unable to carry on their works in the face of foreign importation.

In spite of these unfavourable circumstances, however, the cotton manufacture has greatly increased of late years in France. The quantity of raw cotton imported into that country in 1812, the earliest year of the present century as to which we have any statement, was 6,343,230 kilogrammes—about 14,000,000 pounds. In 1815 the importation amounted to 36,000,000 pounds, but for some years thereafter the increase did not continue at the same rate of progression, so that in 1823 the quantity consumed was somewhat under 45,000,000 pounds. In the following year the importation was 61,000,000 pounds, and in 1833 had reached 78,000,000, being about one-fourth part the quantity used during that year in this country

The increase has since gone forward with at least an equal speed, the quantity of cotton used by the manufacturers of France in 1843 having been equal to 132,000,000 of pounds, being about 70 per cent. addition in ten years, and about 22½ per cent. of the quantity used in the same year in the United Kingdom.

These quantities do not afford a correct view of the French cotton manufacture up to 1833, because a considerable quantity of cotton twist of fine qualities was then every year systematically smuggled into the country. The government has been supposed to connive at this illegal traffic, because the French spinners being unable to produce twist of a quality fit for the manufacture of muslins and fine cloths, the very existence of their largest cotton manufacturers would have been endangered or destroyed by the exclusion of the material which they employ. The extent to which this illicit trade was carried is thus stated in the Report of Messrs. Villiers and Bowring, on the Commercial Relations between Great Britain and France (page 48): —"Of English manufactures, cotton-twist is among those whose fraudulent introduction is the most extensive and irrepressible. It makes its way both by land and sea, in spite of all interdictions, to a continually increasing amount. The qualities principally in demand are the higher numbers, which the French mills cannot produce, or produce only at an extravagant price. An official return states that the French number 180, which can be bought in England at 18 fr. per kilogramme, sells in France at 39 fr. to 40 fr. The same quality of French manufacture, to which no risk of seizure attaches, will, it is said, produce 42 fr., the two or three francs of difference being paid for the additional security. The numbers principally introduced are from 170 to 200, and are employed chiefly for the fabrication of bobbin-net (tulle). But there is also a large demand for English cotton chains at Tarrare, and they are so necessary for the existence of that manufacture, that, by the connivance of the Custom-house authorities, no seizures take place after the article is lodged in the warehouse of the manufacturer. He has then to support an additional cost of from 30 to 40 per cent., the whole of which, (by the connivance of the Government) goes to the contraband traders. The amount of illicit introduction is calculated at above twelve millions of pounds."

Since the time when this report was written some relaxation has been made in the French tariff, and by a royal ordonnance, bearing date 8th July, 1834, the importation of cotton yarns above a certain degree of fineness is permitted on payment of a duty equal to about half-a-crown per pound, which is equivalent to 45 per cent. upon the value of those qualities which are mostly imported into France. At this rate of duty some fine English yarns are regularly introduced, but the charge of the smuggler being below that of the Custom-house, a much larger

quantity is still illicitly imported, and it does not appear that the spinning-trade in this country has been much if at all affected by this substitution of a high duty for the former prohibition.

The following table of the quantity and value of cotton imported into France, and of cotton manufactures exported from that country, from 1787 to 1789, and from 1812 to 1848, is taken from the "Enquête Relative à Diverses Prohibitions," published from authority, and from the yearly statements of the Director-General of the Customs:—

Years.	Cotton Imported.		Cotton Manufactured Goods and Yarn Exported.	
	Weight.	Value.	Weight.	Value.
	Kilogrammes.	Francs.	Kilogrammes.	Francs.
1787	4,466,000	42,903,100	..	21,227,200
1788	5,439,424	36,637,600	..	21,455,400
1789	4,760,221	33,274,000	..	21,289,000
1812	6,343,230	35,115,683	792,789	18,507,938
1813	9,638,842	54,556,716	837,663	8,532,058
1814	8,181,710	32,737,609	331,995	10,187,844
1815	16,414,606	32,829,212	314,969	8,698,840
1816	12,115,042	19,849,228	1,020,132	22,002,698
1817	13,370,308	25,521,051	841,370	18,419,106
1818	16,974,159	30,945,259	784,766	16,748,361
1819	17,010,401	32,232,948	937,756	19,606,547
1820	20,203,314	36,825,157	1,369,160	29,120,058
1821	22,586,615	41,366,675	1,709,028	21,534,061
1822	21,572,413	39,696,083	1,107,075	21,284,678
1823	20,353,552	37,006,940	1,292,515	28,812,455
1824	28,030,085	49,187,624	1,751,975	31,829,074
1825	24,667,312	44,061,717	1,847,417	43,190,495
1826	31,914,494	56,353,941	1,629,766	37,646,785
1827	29,684,385	51,918,941	1,987,678	46,522,211
1828	27,375,163	49,143,991	1,977,162	45,729,737
1829	31,839,001	57,139,657	2,251,265	52,790,840
1830	29,260,433	51,760,582	2,339,065	55,636,150
1831	28,229,487	49,441,816	2,360,944	55,615,059
1832	33,636,417	58,442,869	2,353,474	55,128,426
1833	35,609,819	62,289,758	2,438,742	57,007,133
1834	36,934,536	65,054,164	2,289,828	53,416,016
1835	38,759,819	67,732,115	2,578,206	62,187,316
1836	44,331,604	76,812,763	2,734,345	65,999,740
1837	43,828,462	76,220,787	2,836,674	64,823,149
1838	51,258,620	89,464,781	3,406,438	80,826,055
1839	40,534,278	71,204,784	3,675,642	85,725,051
1840	52,941,581	94,005,975	4,559,566	109,033,064
1841	55,870,483	98,549,849	4,416,314	105,366,437
1842	57,326,567	101,820,678	3,168,362	72,742,437
1843	59,999,857	107,082,894	3,895,826	82,576,847
1844	62,411,954	110,826,157	5,682,972	117,515,260
1845	72,919,971	129,255,980	6,510,201	127,723,996
1846	71,564,545	128,076,702	8,295,984	139,759,314
1847	56,603,366	83,107,902	7,309,890	53,303,538
1848	56,228,872	50,702,648	6,239,869	44,518,098

The countries to which France exported woollen and cotton goods in 1833, with the value of those exported, are shown in the following table, which is likewise taken from the "Enquête:"—

COUNTRIES.	Value of Exports.	
	Woollens.	Cottons.
	Francs.	Francs.
England	1,650,105	513,296
Holland	242,623	585,634
Belgium	2,062,043	6,763,941
Sweden and Norway	68,993	..
Russia	171,143	..
Austria	128,396	..
Prussia	104,095	253,897
Germany	1,389,634	2,667,009
Switzerland	3,093,008	2,440,357
Sardinian States	4,093,149	5,467,417
Tuscany and Roman States	505,868	519,580
Naples and Sicily	620,871	1,186,493
Spain	5,329,175	14,340,647
Turkey and Greece	4,818,906	398,093
Egypt	1,017,094	..
Barbary States	1,115,399	218,491
Algiers and Coast of Africa	683,149	582,539
United States of America	6,207,054	5,739,955
Hayti	149,891	1,830,089
Foreign West Indies	84,227	1,135,651
Mexico	278,601	1,690,844
Columbia	23,826	45,325
Buenos Ayres	168,887	236,983
Chili	280,999	262,519
Peru	970,665	74,387
Brazil	377,957	1,212,117
Foreign India	46,081	185,306
French Colonies	771,302	7,116,745
Other Countries	210,210	892,000
Fr.	36,663,351	56,359,315
Or sterling £	1,466,534	2,254,372

The silk manufacture has long been carried on in France to an extent which has caused it to be considered one of the most important branches of the national industry. The raw material being principally produced in the country, there are not any means of ascertaining precisely the quantity that is employed in its looms. At the breaking out of the French revolution, the estimated quantity of native silk produced was one million of pounds. The tables published by Count Chaptal of the production of different departments in the five years from 1808 to 1812 give an annual average of about 950,000 pounds. There had consequently been no increase during twenty years—the whole of which period had been passed in a state of war. Between 1812 and 1820 we have no estimate of the progress of production: in the latter year the quantity is said to have amounted to 1,350,000 pounds, but there are reasons for believing that this estimate is somewhat below the truth. The facts collected by Dr. Bowring in his official inquiry show that the annual produce of France in 1832 was about 3,000,000 pounds. The average annual weight of foreign silk imported into France, after deducting the quantity re-exported, was then about 1,000,000 pounds. There are not any tables of the quantities imported at earlier periods,

but reasons are given for believing that although the average importations have since been doubled, the relative proportions of native and of foreign silk have been pretty steadily preserved, and that importation has only kept pace with the increase in quantity of the native material. It is estimated that the total value of the silk manufactures of France is 200,000,000 of francs, or about 8,000,000*l.*, four-sevenths of which consist of the value of the material used, the remaining three-sevenths of value being added for labour and profit. The result of the manufacture in both countries is placed in very striking contrast by the fact, that while two-thirds of the silk goods made in France are exported —leaving, consequently, for the use of her 34,000,000 of inhabitants, silk fabrics below the value of 3,000,000*l.* sterling,—the export of English-made silk goods does not amount to one-tenth of the quantity that passes through our looms, and is more than replaced by the goods of foreign manufacture imported for use; so that, taking into the calculation the difference in the number of the people, and the greater cost of production, the consumption of silk goods is more than five times as great in the United Kingdom as it is in France.

"It appears," says Dr. Bowring, in his second Report on the Commercial Relations between France and England, "that before the legal introduction of French manufactured goods into England, the exports from France had gone on progressively from an amount of 1,744,105 fr. in 1818, to 6,104,103 fr. in 1825. The difference in the cost of production at that time was hardly less than 40 per cent.; so that the amount of smuggling did not represent a less sum than 340,000*l.* per annum."

"According to the estimates of the French and English Custom-houses, it would appear that the difference of weight between the manufactured silks exported from France, and those regularly imported into England, from 1825 to 1831, averaged 134,400 pounds; and that, from 1829 to 1831, the average was equal to about 140,000 pounds weight."

A considerable revolution in the practice of the producers of silk has been introduced of late years into the southern provinces of France. A very interesting paper upon this subject was furnished to Dr. Bowring by Messrs. *Thomas, Frères*, of Avignon, and is inserted in his second Report on the Commercial Relations between France and Great Britain. The following extract from that paper will serve to account for the great increase experienced in the production of silk, when compared with the early part of the century:—

"The cultivation of mulberry-trees was for a long period only an accessory branch of the income derived from their estates by the little as well as by the larger proprietors; their cultivation, as compared with that of grain, forage, and other articles peculiar to certain districts,

such as saffron and madder in this country (Vaucluse), oil and tobacco in Provence, &c., was the less thought of because the rearers of silk-worms, notwithstanding the great importance of the article, considered as a whole, in the south of France, were so much under the influence of long-standing practice, prejudices, and ancient absurdities, that the management of their business was unintelligible, and its production most uncertain; whereas had they proceeded, as they at length did, on sound principles, guided by the simplest elements of chemistry, they would have rendered these harvests more certain than those of any other crop. These rearers of silk-worms differed materially in their method of proceeding; sometimes the farmers sold the mulberry leaves, or gave them in consideration of a participation in the profits, to some rearer of silk-worms, who devoted his particular attention to the worm alone: sometimes the leaves were sold to other rearers, who, from the excessive numbers they hatched, were not able sufficiently to provide them with leaves. Within so late a period as twenty years back, so imperfect were the methods pursued, that on a farm furnishing leaves for ten or twelve ounces of silk-worms' eggs, which should produce from 80 to 100 pounds of cocoons per ounce, it was considered a good crop if five or six pounds altogether were produced. It was not until towards the close of the reign of Napoleon, when the active spirit of the nation sought other fields for exertion than the field of battle, that, guided by the studies and examples of some enlightened agriculturists — and amongst others those of Dandolo—and stimulated by the high prices to which silk had been advanced, our people of the south devoted themselves, with that ardour which marks their character, to the cultivation of the mulberry-tree, and to the rearing of the silk-worm. Many of the large proprietors united their efforts to those of a multitude of little planters of the mulberry-tree and rearers of the silk-worm, and it was then that establishments were formed, which, by their importance, and the certainty and value of their results, would have excited astonishment at the commencement of that age."

The raw silk of France is of very excellent quality. This arises principally from the nature of the soil, which is favourable to the promotion of that degree of vigour in their vegetation, which gives to mulberry leaves a quality that imparts to the silk produced a great degree of fineness, joined to a brilliant colour. The dealers have besides adopted a system which proves an effectual security against fraud in the sale of silk. When reeled, it is sent to an establishment called the *condition*, in which, by exposure to a high temperature, all superfluous moisture is evaporated, and the true weight ascertained. It is upon certificates of this weight, signed by the officers of the establishment, that sales are effected. A very careful investigation of this subject carried on at Lyons, leads to the belief that, by this means, the purity

of the material is tested with very great accuracy. Until a recent period, the exportation of native raw silk was forbidden by the French Government, under the belief that their manufacturers were thereby secured in the possession of an advantage over their rivals in other countries. This circumstance formed a subject of complaint on the part of our silk-weavers, who were thus placed at a disadvantage in competing with goods made of a better material than they were able to procure. This cause of complaint has now been removed. Yielding to the representations made by the Commercial Commissioners of this country, the French Government has legalized the exportation of native silk, both raw and thrown, at a moderate rate of duty; a concession which, by promoting production, is of advantage to the agricultural interest in the south of France, without inflicting any real injury on the manufacturers of that country.

A considerable impulse has been given to manufacturing industry in different parts of Germany within the last twelve years, and especially since the formation of the Prussian Commercial League. In Prussia itself many cotton-spinning mills have been erected since 1833, and large capitals have been invested in machinery. In Saxony, the manufacture of hosiery has become considerable in amount, and the goods produced are so low in price that exports have sometimes been made to England in the face of a consumption duty of 10 per cent. on the value. The cotton manufacture has also been successfully undertaken in Bavaria, in Würtemberg, and in some others of the states included within the league. These attempts, however, are for the most part of such recent origin, that it is hardly possible to form any certain estimate as to their ultimate results. At present it is only through the imposition of a considerable import duty in the German States, that their cotton goods generally are able in any way to compete with English fabrics; but it is altogether impossible to say how long this state of things may continue, and it may reasonably be expected, that the German artisans will in time acquire a degree of skill and experience, which, aided by the lower cost of subsistence in Germany, as compared with England, will render their rivalry formidable to Manchester and Paisley, at least in neighbouring countries, if not in more distant parts of the world.

It has long been the policy of the Russian Government to afford protection to its own manufacturers by prohibiting the goods of other countries. At present nearly the whole amount of the exports from this kingdom to Russia consists of cotton yarn, which is there woven into all kinds of fabrics, from the coarsest fustians to fine cambrics. The establishments for this purpose are under the immediate patronage of the Russian government, and it is said that the goods produced are so good in quality as to equal those of English make; but in regard to the cost of production, the advantage is still greatly with us, and so it

will probably remain so long as Russia shall maintain the policy of protecting its artisans from the competition of other countries.

In several of the Cantons of Switzerland the manufacture of woven fabrics has been steadily and prosperously pursued of late years. So little of what is called protection has been accorded to the Swiss manufacturer, that until this time there has not been any Custom-houses in the Cantons from which to obtain returns of imports and exports, whereby to ascertain the comparative progress of these branches of industry. Free trade, in the fullest extent of the term, has been tried in these Cantons, and although, as already observed, we are unable to bring forward an array of figures in proof of its success, we know that in spite of the disadvantages of geographical position, and notwithstanding the comparative scarcity of capital, the raw cotton, which is obtained by a tedious and expensive land carriage, is converted into fabrics which compete successfully in every market with the products of our looms; and that the silk and linen goods of Switzerland, which are excluded by fiscal regulations from neighbouring countries, find customers in a wider and more profitable field on the other side of the Atlantic. If we take into account the small natural resources of the Swiss manufacturers, it may with truth be asserted that no people have made greater, or even as great, progress as they have done during the last twenty-five years. Switzerland has been strongly urged to join the Prussian Commercial League, and by that means to secure twenty-four millions of consumers for its cheap manufactures; but satisfied with their present condition and future prospects, and jealous as to the possible effect of permitting foreigners to interfere in any way with their concerns, the Cantons have hitherto declined to accept the proffered advantage.

CHAPTER IV.

MANUFACTURES.

IRON—STEEL—BRASS—COPPER—PLATED WARES—GLASS—HARDWARES.

Increase of population of Birmingham—Fall in cost of goods—Quantities exported, and value of the same—British iron exported—Quantity and value of brass and copper goods exported—System of manufactures pursued in Birmingham—Increase of population of Sheffield—Conversion of iron into steel—Quantity of steel exported—Value of plated goods exported—Glass manufacture—Causes which have prevented its extension—Quantity retained for consumption—Effect of high duties in limiting consumption—Illicit manufacture.

THERE are many branches of manufacturing industry in this country which are of considerable importance from the number of hands to whom they give employment, but as to the amount or progress of which it is not possible to form any other than a conjectural or at best an approximative opinion.

Among the manufactures thus circumstanced may be mentioned those of hardware, plated goods, and earthenware. The materials of which these articles are made are for the most part produced at home; and as the goods manufactured have never been subjected to duty, no means exist whereby to judge of the increase or otherwise of their quantity. It was at one time thought practicable to estimate the progress of the manufacture carried on at the Potteries in Staffordshire, by ascertaining the quantity of raw material conveyed into the district on the canals; but attempts which have been made to procure a statement of the tonnage so conveyed, have not hitherto met with any success, owing probably to a misconception on the part of the managers of the canals as to the motive which has prompted the inquiry. In proportion as the value of such information to the community becomes better known, we may hope that the avenues to it will be less jealously guarded, and that a general willingness to communicate information will ere long take the place of that feeling which seeks advantage from concealment.

With regard to the manufacture of hardwares, we can have no doubt as to its extension if we compare the population of Birmingham as given at each census.

In 1801 it consisted of		73,670	souls.
1811	„	85,755	„
1821	„	106,722	„
1831	„	146,986	„
1841	„	181,116	„

So that the number has been increased by nearly 150 per cent. in forty years. It will be observed that the increase which occurred during the ten years, from 1821 to 1831, amounted to upwards of 54 per cent. upon the population as it existed at the beginning of the century.

The increase of buildings in the town of Birmingham during the ten years between 1821 and 1831, amounted to 38 per cent., and the greater number that were being built in 1831, as compared with 1821, showed that the increase was still progressive, as fully appeared in 1841.

Years.	Houses Inhabited.	Houses Building.	Houses Uninhabited.	Total.
1821	21,487	148	1,461	23,096
1831	29,656	551	2,111	32,318
1841	36,121	323	3,847	40,291

The extension of the manufacture of which this growth of population exhibits indubitable proof, has been accompanied—or, perhaps, to speak more correctly, has been occasioned—by improvements in the methods of production, which have lowered the prices of goods in a manner calculated to insure a continuance of prosperity to those engaged in the manufacture, by extending the number of consumers. This fact is shown by Mr. Babbage, who has given the following table "extracted from the books of a highly respectable house at Birmingham."

DESCRIPTION.		1812		1832		Reduction per Cent. in Price of 1812.
		s.	*d.*	*s.*	*d.*	
Anvils	cwt.	25	0	14	0	44
Awls, Liverpool blades	gross	3	6	1	0	71
Candlesticks, iron, plain		3	10¾	2	3½	41
" " screwed		6	4½	3	9	41
Bed screws, 6 inch, square head	gross	7	6	4	6	40
" " flat head	"	8	6	4	8	45
Currycombs, 6 barred	dozen	4	0½	1	0	75
" 8 barred	"	5	5½	1	5	74
" patent, 6 barred	"	7	1½	1	5	80
" " 8 barred	"	8	6¾	1	10	79
Fire irons, iron head, No. 1		1	4½	0	7¾	53
" " No. 2		1	6	0	8½	53
" " No. 3		1	8½	0	9¼	53
" " No. 4		1	10½	0	10½	53
Gun locks, single roller	each	7	2½	1	11	73
Locks, 1¼ brass, port, pad	"	16	0	2	6	85
" 2½ inch, 3 keyed till locks	"	2	2	0	9	65
Shoe tacks	gross	5	0	2	0	60
Spoons, turned, iron table	"	22	6	7	0	69
Stirrups, common, tinned, 2 bar	dozen	7	0	2	9	61
Trace chains, iron	cwt.	46	9½	15	0	68

The interval that occurred between the dates here contrasted was twenty years, and it will be seen that during that time, in a pretty extensive list of articles, the reduction in price on some was 40 per cent., while on others it went to the almost incredible extent of 80 to 85 per cent. The cost of the material employed had, it is true, fallen very

considerably in the interval, but this can have had but little influence in reducing prices, when, as is the case with nearly all the articles comprised in the list, the first cost of the material forms only a minute portion of the value of the finished article.

The degree in which this reduction in their cost has occasioned an increase in the number of foreign customers, may be gathered from the amount of hardware and cutlery exported at different periods during the present century: viz.—

Years.	Tons.	Years.	Tons.
1805	4,288	1828	12,100
1806	4,629	1829	13,028
1807	4,669	1830	13,269
1808	2,673	1831	16,799
1809 to 1811	Records destroyed	1832	15,294
		1833	16,497
		1834	16,275
1812	5,854	1835	20,197
1813	Records destroyed	1836	21,072
1814	6,162	1837	13,372
1815	15,472	1838	15,295
1816	13,914	1839	21,177
1817	8,190	1840	14,995
1818	11,057	1841	17,667
1819	8,699	1842	15,212
1820	6,697	1843	17,183
1821	9,037	1844	22,552
1822	10,466	1845	20,755
1823	10,375	1846	19,615
1824	12,285	1847	20,614
1825	10,980	1848	18,105
1826	9,627	1849	23,421
1827	12,443		

The value of these exports since 1820, as declared by the merchants at the time of shipment, was:—

Years.	£.	Years.	£.
1820	949,085	1835	1,833,042
1821	1,237,692	1836	2,271,313
1822	1,334,895	1837	1,460,807
1823	1,264,441	1838	1,498,327
1824	1,454,236	1839	1,828,521
1825	1,391,112	1840	1,349,137
1826	1,169,105	1841	1,623,961
1827	1,392,870	1842	1,398,487
1828	1,385,617	1843	1,745,519
1829	1,389,515	1844	2,179,087
1830	1,410,936	1845	2,183,000
1831	1,620,631	1846	2,180,587
1832	1,433,297	1847	2,341,981
1833	1,466,361	1848	1,850,460
1834	1,485,233	1849	2,201,315

A much more striking progress has been made in the exportation of British iron in an unmanufactured state. The quantities supplied to other countries by Great Britain in each year of the present century have been:—

Years.	Bar Iron.	Pig Iron.	Castings.	Years.	Bar Iron.	Pig Iron.	Castings.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1801	3,001	1,583	..	1826	33,253	6,563	5,940
1802	5,459	1,815	..	1827	45,284	7,095	6,292
1803	3,574	1,532	..	1828	51,108	7,826	6,205
1804	6,064	2,237	..	1829	56,178	8,931	8,219
1805	6,594	3,276	..	1830	59,885	12,036	8,854
1806	4,194	2,549	1,694	1831	64,012	12,444	10,361
1807	5,172	2,925	1,593	1832	74,024	17,566	12,495
1808	9,096	3,388	1,797	1833	75,333	22,988	14,763
1809 to 1811	Records destroyed.		..	1834	70,809	21,788	13,870
			..	1835	107,715	33,073	12,604
			..	1836	97,762	33,880	19,891
1812	13,196	4,066	2,349	1837	95,663	44,387	12,373
1813	Records destroyed.		..	1838	141,923	48,554	14,942
1814	15,468	307	5,034	1839	136,452	43,460	10,836
1815	18,223	166	5,320	1840	144,719	49,801	9,886
1816	20,870	953	6,388	1841	189,249	85,866	14,077
1817	34,310	4,057	6,322	1842	191,301	93,851	15,934
1818	42,095	3,048	6,303	1843	198,774	154,770	16,500
1819	23,765	906	7,270	1844	249,915	99,960	18,969
1820	36,848	2,746	5,186	1845	153,813	77,361	22,036
1821	34,093	4,484	4,506	1846	145,475	159,163	20,160
1822	33,395	5,095	4,810	1847	214,874	176,086	26,321
1823	33,138	7,545	5,730	1848	321,134	175,650	19,371
1824	25,781	2,033	6,717	1849	376,118	161,775	16,549
1825	25,613	2,815	5,944				

The quantity and value of brass and copper manufactures exported in each year from 1805, the earliest year of which we have any record, are as under. It is only in this branch that any estimate can be formed of the progress of these manufactures, but there is no reason to doubt that the home demand has at least kept pace with that from foreign countries. The value previous to 1814 is given according to the official rates, but on and after that year the real or declared value is stated.

Years.	Quantity.	Official Value.	Years.	Quantity.	Real Value.
	Cwts.	£.		Cwts.	£.
1805	85,054	382,740	1827	147,222	786,955
1806	71,154	320,198	1828	128,106	678,786
1807	91,422	411,399	1829	163,241	812,366
1808	79,210	356,442	1830	189,592	867,344
1809	89,752	403,888	1831	181,951	803,124
1810	79,584	358,132	1832	213,482	916,563
1811	64,210	288,945	1833	192,974	884,149
1812	87,508	393,784	1834	205,960	961,823
1813	Records destroyed.		1835	242,095	1,094,749
		Real Value	1836	204,835	1,072,344
1814	73,248	479,518	1837	250,105	1,166,277
1815	124,426	758,604	1838	265,204	1,221,732
1816	128,044	675,004	1839	272,141	1,280,506
1817	161,128	795,843	1840	311,153	1,450,464
1818	148,490	811,191	1841	327,247	1,523,744
1819	115,998	669,403	1842	395,210	1,810,742
1820	145,124	738,486	1843	364,128	1,644,248
1821	149,444	678,976	1844	388,882	1,736,545
1822	135,956	597,861	1845	372,097	1,694,441
1823	123,982	543,618	1846	325,083	1,558,187
1824	120,048	523,489	1847	316,015	1,541,868
1825	90,054	485,118	1848	282,422	1,257,944
1826	116,584	571,149	1849	409,603	1,875,866

The largest shipments of these manufactures are made to India; the markets of Hindustan, in 1844, took from us 141,237 cwt., valued at 611,109*l.*, a quantity nearly double the amount of the shipments to all parts of the world in 1814. France is our next most considerable customer, having, in 1844, taken 103,214 cwt., valued at 453,405*l.*; to the whole of our colonies and dependencies, exclusive of India, we sent only 18,739 cwt., valued at 80,232*l.* The United States took 43,811 cwt., valued at 197,289*l.*; leaving 81,881 cwt., valued at 394,510*l.* for the supply of the rest of the world.

The greater part of the articles most commonly manufactured at Birmingham are not produced in extensive factories in which large capitals must be employed for the erection of machinery. Almost all the small wares of the district are made by workmen who undertake, each one in his particular line, to execute orders received by the merchants and agents settled in the town. The profitable performance of their contracts, however, calls for the employment of a cheaper kind of power than is at the command of men who, like these workmen, have little or no capital; and this course of business has opened a channel for the employment of money in the town, in a manner which is found to be profitable to those who engage in it, and advantageous to the small manufacturer. The plan alluded to is this. A building containing a great number of rooms of various sizes, is furnished with a steam-engine, working shafts from which are placed in each apartment or workshop, which is likewise furnished with a lathe, benches, and such other conveniences as are suited to the various branches of manufacture for which the rooms are likely to be needed. When a workman has received an order for the supply of such a quantity of goods as will occupy him a week, or a month, or any other given time for their completion, he hires one or more of these rooms, of sizes and with conveniences suited to his particular wants, stipulating for the use of a certain amount of steam-power. He thus realizes all the advantage that would accompany the possession of a steam-engine; and as the buildings thus fitted up are numerous, competition on the part of their owners has brought down the charge for the accommodation they offer to the lowest rate that will ensure to them the ordinary rate of profit on the capital employed.

Before the introduction of this system, the trade of Birmingham was for the most part carried on by men of large capital, who employed journeymen, and gave a considerable credit to the merchants who dealt with them. At present those merchants themselves employ the workmen, who can give no credit, but receive payment in ready money at the end of every week for such part of their goods as they can then deliver in a finished state.

In this way the profit of the intermediate dealer is saved, and this circumstance will, in part, account for the great diminution that has

occurred in the prices of the different articles contained in the table already given.

The prosperous state of the manufacture of cutlery may be fairly inferred from the increase in the population of Sheffield, from which town proceeds nearly all the cutlery which is made in this kingdom, including a great part of the "London made" knives and razors, stamped with the names of metropolitan cutlers, who avail themselves of a prejudice on the part of the public, to charge an exorbitant profit on their "town-made" goods.

The population of Sheffield at each of the five decennary periods, ending with 1841, was as follows:—

Years.	Population.	Increase per Cent.
1801	45,755	..
1811	53,231	16
1821	65,275	22
1831	91,692	40
1841	111,091	21

The comparative situation and apparent prospects of the town at the enumerations of 1821, 1831, and 1841, may be inferred from the returns made under the Population Acts: viz.—

Years.	Houses Inhabited.	Houses Building.	Houses Uninhabited.	Total.
1821	13,381	80	1,664	15,125
1831	18,331	468	914	19,713
1841	20,705	176	2,989	23,870

One branch of manufacture carried on in Sheffield has been very greatly extended during the last few years, until it has now become of considerable importance; this is the conversion of iron into steel, a process which is performed to the extent annually of many thousand tons, a considerable part of which is exported in an unwrought form. The town of Sheffield, in 1835, contained fifty-six furnaces for converting iron into steel; beside which, there were sixty-two establishments, containing 554 furnaces, for *moulting* steel. The original conversion of the metal into blistered steel occasioned the use of about 12,000 tons of coal in the form of coke, and the subsequent processes required about 81,000 tons in addition. The various manufactures of cutlery and plated goods carried on in the town consumed about 200,000 tons, and 38,000 tons was the estimated allowance for the working of steam-engines, of which there were then seventy-four, of the aggregate power of 1353 horses. If to these quantities are added 184,000 tons, as fuel for household purposes, it will appear that the entire consumption of coal, in Sheffield, amounted, in 1835, to 515,000 tons, the whole of which was taken from collieries in the immediate vicinity of the town. Five-sixths of the iron used for manufacturing purposes in Sheffield, is of foreign production; only 2000 out of 12,000 tons consumed in the year

is of British origin. The cost of the fuel forms just one-third part of the expense of converting and casting steel.

The progress of this particular branch of trade may be understood from the following statement of the quantity of unwrought steel exported in each year, from 1814 to 1849:—

Years.	Tons.	Years.	Tons.	Years.	Tons.
1814	323	1826	472	1838	2,946
1815	1,221	1827	535	1839	3,974
1816	917	1828	917	1840	2,583
1817	475	1829	714	1841	4,116
1818	704	1830	832	1842	3,308
1819	494	1831	1,207	1843	3,199
1820	326	1832	1,112	1844	5,121
1821	515	1833	1,587	1845	7,015
1822	564	1834	1,709	1846	8,467
1823	479	1835	2,810	1847	9,787
1824	570	1836	3,014	1848	6,912
1825	533	1837	2,432	1849	8,095

Our principal market for unwrought steel is found in the United States of America. The quantities sent there in each of the thirty-five years from 1815 to 1849, were as follows:—

Years.	Tons.	Years.	Tons.	Years.	Tons.
1815	774	1827	227	1839	2,695
1816	497	1828	518	1840	1,202
1817	249	1829	330	1841	2,535
1818	224	1830	397	1842	1,507
1819	124	1831	852	1843	1,336
1820	85	1832	686	1844	2,376
1821	274	1833	970	1845	3,633
1822	288	1834	1,099	1846	4,132
1823	233	1835	1,886	1847	5,428
1824	173	1836	1,952	1848	4,607
1825	130	1837	1,447	1849	5,216
1826	137	1838	1,636		

It will be observed, that the first few years of the series present larger quantities than were afterwards required. This circumstance is accounted for by the fact, that no shipments took place from this country to America in the years immediately preceding, during which time we were at war with the United States. The exportation of 1815, the first year of renewed intercourse, has, however, been greatly exceeded of late, giving the appearance of a steady as well as rapid extension of the trade.

The manufacture of plated goods, which is carried on in Sheffield and Birmingham, is one of those branches of industry, the progress of which we have no means of ascertaining. The quantity exported forms no indication, and in fact, there is not in foreign countries any reason equally cogent with that existing in England for the use of plated goods; for, so far at least as we know, there is not any other country in which a duty is levied upon articles of use and luxury, made of gold and silver. The imposition of this duty has no doubt given encouragement to the production of plated wares for home use, but not for exportation, since the duty paid upon articles fashioned entirely with the more precious material is repaid to the exporter.

The declared value of plated goods exported in the years 1831, 1832, and 1833, was no more than 22,295*l*, 20,727*l*., and 24,209*l*., respectively; about two-thirds of these amounts were sent to different colonies and dependencies of the British empire, and principally to India.

Our makers of plated wares have an advantage over all others, from the perfection of the machinery used in this country for rolling metals. The difference thus caused, if estimated in money, is in favour of English manufacturers, as compared with those in France, in the proportion of seventeen to thirteen in the cost of the material employed. It has been estimated, that the value of articles of this manufacture used in the United Kingdom, amounts to 1,200,000*l*. per annum; while in France the consumption does not exceed in value 40,000*l*. sterling per annum, an equal value being also exported from that country, principally to Holland, Belgium, Spain, the Sardinian States, Germany, the United States of America, and Mexico.

The declared value of British-made plate, plated ware, jewellery, and watches, exported from the United Kingdom, the whole of those articles being included together in the Custom-house returns, was as follows, during the twenty-three years from 1827 to 1849:—

Years.	£.	Years.	£.	Years.	£.
1827	169,456	1835	231,903	1843	172,008
1828	181,973	1836	338,889	1844	269,650
1829	177,830	1837	258,076	1845	294,145
1830	190,515	1838	240,584	1846	245,030
1831	188,144	1839	274,305	1847	283,037
1832	173,593	1840	204,427	1848	234,046
1833	179,283	1841	214,126	1849	233,058
1834	192,269	1842	201,511		

Of the shipments made in 1844, amounting to 269,650*l*., the East Indies took to the value of 38,364*l*.; the West India colonies, 13,122*l*.; other British possessions, 48,638*l*.; the United States of America, 60,788*l*.; and Italy, 7,691*l*.; leaving 101,047*l*. for the value of shipments to all other parts of the world.

Our glass manufacture has been hitherto placed under circumstances which, while they enable us to ascertain the importance of the art as a branch of national industry, have, until the repeal of the duties in 1845, in a great degree prevented its extension.

The only reasons that can be shown, why the demand for an article so generally useful and desirable as glass should not have kept pace with the growth of our population, and with the increase of our means of commanding the conveniencies of life, are these—that it has been loaded with excessive duties, and that the processes of the manufacture have been so interfered with by regulations necessary for the collection of those duties, as to prevent the introduction of many improvements. A further cause may perhaps be found in the fact, that in order to work profitably under those regulations, it has been necessary to carry on the

manufacture upon so large a scale, as to create a virtual monopoly, of some of its branches at least, in the hands of a few—a state of things generally unfriendly to improvement.

England possesses within herself nearly all the materials of which glass is composed, and can procure the rest from abroad at as cheap a rate as any other manufacturing country. The fuel necessary for the processes, and which forms a large part of the cost of the manufacture, we have on better terms than any other country; and yet, although the whole of the duty charged is drawn back on exportation, there are not any countries in which any considerable quantity of glass is made where its price has allowed our manufacture to be brought into competition with their own.

The effect of enhancement of price upon the home consumption of any article, not of absolute necessity, is made sufficiently striking by the fact, that in 1801, with a population of sixteen millions, the quantity of glass used was 325,529 cwts.; and in 1833, with a population of twenty-five millions, the quantity was no more than 363,468 cwts.; an increase of less than one-eighth, while the population had increased in the proportion of one-half. That some economical improvements have been introduced into the processes of glass-making, notwithstanding the obstacles presented by Excise regulation, is rendered apparent by the fact, that the prices have fallen very considerably within the last few years; while the quantity used has been (although in only a small degree) increasing. The fall in price has been proceeding gradually, from year to year, just in such a manner as would accompany the employment of more economical modes of working. Since 1827, and up to the time when the Excise duty was repealed, the reduction, taking one article with another, in a long list furnished by a respectable manufacturer, has been 25 per cent. upon the price of those articles which are of common use.

The quality of English glass is considered good. As regards the most costly branch of the manufacture—plate glass, our manufacturers have, within the last few years, successfully rivalled the French makers, so that English plate glass is now even preferred to French. There yet remains much to be done, however, towards perfecting this beautiful manufacture.

The quantities of glass made and retained for consumption in Great Britain, in each year from 1789 to 1844, are shown in the following table, from which it will be seen, that notwithstanding the augmentation of the population, which during the fifty-six years embraced by the table, has amounted to more than eighty per cent., there has been no increase whatever, but the contrary, in the consumption of most descriptions of British glass.

Years.	QUANTITIES of GLASS retained for HOME CONSUMPTION.							Net Revenue of Customs and Excise.
	Flint and Plate.	Plate.	Broad.	Crown, or German Sheet.	Common Bottle Glass.	Plate, &c., Imported.		
	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Feet.	£.
1789	48,245	..	24,194	81,403	185,296	1,114	13,502	159,448
1790	44,527	..	21,302	81,285	215,034	1,270	11,375	160,057
1791	45,990	..	21,924	76,185	242,684	1,871	15,095	163,911
1792	51,419	..	22,214	75,610	238,127	1,858	28,004	167,866
1793	55,267	..	21,519	80,225	250,192	1,642	20,736	177,407
1794	67,615	..	20,607	83,940	227,476	2,593	223	178,958
1795	49,218	..	21,694	47,881	205,330	3,327	2,010	183,749
1796	49,166	..	26,254	53,538	165,065	2,081	10,076	176,944
1797	48,463	..	25,971	58,235	147,865	1,640	4,598	174,092
1798	49,938	..	20,621	50,790	105,096	1,313	409	156,380
1799	55,987	..	19,690	41,571	132,475	1,867	51	164,659
1800	61,748	..	19,874	55,821	159,334	2,235	1,958	188,240
1801	57,663	..	19,381	61,389	187,096	2,775	752	195,414
1802	59,483	..	20,948	67,401	199,939	2,850	267	209,470
1803	69,764	..	16,626	81,501	239,297	2,402	3,454	241,856
1804	62,656	..	12,741	68,678	223,174	1,927	567	219,979
1805	64,311	..	16,701	97,056	215,094	2,556	..	285,937
1806	59,027	..	16,224	84,949	183,832	1,561	..	316,059
1807	61,587	..	10,855	83,512	252,332	131	..	327,077
1808	64,682	..	12,145	89,544	283,498	149	..	325,565
1809	66,815	..	11,151	91,938	263,390	88	..	349,590
1810	68,872	..	9,176	69,252	252,872	120	..	318,831
1811	70,301	..	9,646	86,338	253,983	128	..	360,989
1812	60,248	..	7,010	91,881	260,664	48	..	364,686
	Flint.							
1813	28,902	10,542	7,013	68,824	159,217	85	12	509,623
1814	32,503	9,139	8,609	60,170	139,746	110	6	425,235
1815	34,903	7,021	8,453	59,584	160,175	256	..	408,820
1816	25,959	3,641	6,140	55,502	155,595	167	..	325,963
1817	27,827	3,426	8,374	73,259	113,065	178	..	419,886
1818	33,948	7,647	8,319	83,986	200,011	223	..	548,309
1819	33,314	7,555	8,250	84,006	235,975	199	..	558,216
1820	29,437	8,822	7,782	70,253	167,208	202	..	469,609
1821	28,717	9,761	8,036	76,887	133,550	203	..	481,652
1822	28,892	9,661	8,353	83,799	149,754	294	..	506,987
1823	33,443	11,776	9,172	87,153	184,672	271	..	544,920
1824	32,568	13,564	9,300	104,489	229,134	277	..	645,172
1825	35,164	15,168	8,386	118,217	248,616	307	54	669,786
1826	45,262	12,528	8,118	98,380	248,103	341	588	622,216
1827	45,058	14,335	7,611	99,711	218,033	531	362	615,056
1828	51,063	17,071	6,956	90,603	224,864	750	1,092	602,632
1829	49,001	14,299	6,869	97,134	209,862	..	1,763	666,520
1830	48,063	13,057	4,845	84,178	165,549	104	1,436	542,595
1831	48,887	14,796	5,915	83,527	143,989	104	863	534,590
1832	49,552	11,990	5,304	90,253	151,705	25	707	555,303
1833	53,878	14,258	6,306	110,649	158,270	65	1,193	621,452
1834	52,711	17,334	6,766	113,225	184,315	54	656	682,822
1835	43,936	16,941	5,847	115,899	201,613	19	624	663,236
1836	86,866	19,993	7,629	117,041	249,145	18	729	652,225
1837	78,121	21,640	7,190	102,016	247,446	38	1,399	637,947
1838	81,594	23,992	6,575	116,018	243,046	31	1,037	688,835
1839	82,309	26,465	8,514	118,510	252,808	63	1,033	718,347
1840	82,486	31,200	9,049	119,230	232,834	613	1,183	729,381
1841	74,444	22,088	..	104,331	190,257	533	1,057	618,017
1842	68,098	18,396	..	98,832	161,537	420	1,989	566,122
1843	72,354	17,047	..	112,048	107,795	716	2,250	600,367
1844	83,712	24,405	..	116,522	193,108	1,671	2,533	653,839

If the first and last years of the series are compared, it will, indeed,

appear that there is an increase of rather less that 24 per cent.; but by taking an average of the three years from 1789 to 1791, and from 1832 to 1834, it will be seen that the annual consumption in the former period was 362,691 cwts., and in the latter period 342,172 cwts., exhibiting an actual falling-off to the extent of 5½ per cent. In 1835 a reduction of two-thirds was made in the rate of Excise duty on flint glass, which was followed by a great immediate increase of consumption of that kind.

It is principally to the complicated regulations of the Excise that this want of progress in our glass manufacture must be attributed. Those regulations, might, indeed, have been indispensable in order to protect the revenue and the fair dealer from frauds on the part of less scrupulous manufacturers; but this fact alone should long ago have served to convince the legislature of the impolicy of continuing to tax any branch of domestic industry as to which it occurs. The business of glass-making is one, the success of which depends in a peculiar degree upon the right application of scientific principles; and when it is considered that a departure from any, the minutest of the many arbitrary regulations prescribed by Act of Parliament for conducting this manufacture, would subject the party so acting to heavy penalties, our wonder is excited, not that so little improvement should have been made in the processes, but that the necessity should not have been earlier acknowledged of affording the utmost encouragement for conducting experiments, without which it is vain to hope for the attainment of excellence.

That the limitation in the quantity of glass used in this country is not wholly owing to the regulations whereby improvements are prevented, but is also occasioned, in part, by the excessive amount of the duty imposed, is made apparent by the facts which accompanied various alterations in the rates of those duties. In 1794 an increase of 50 per cent. was made upon the then existing rates of duty, the effect of which upon the internal consumption of the kingdom was very striking. In the three years preceding the alteration, the average annual quantity retained for home use of all kinds of British glass, was 373,782 cwt.; while in the three years following that in which the duties were augmented, the average annual consumption was only 299,560 cwt.; showing a falling-off of one-fifth between the two periods. In 1812 the rates of duty were doubled, and the annual consumption, which on the average of three years ending in 1811 amounted to 417,911 cwt., fell on the average of the three years following the alteration, to 264,931 cwt., showing a decrease of 36 per cent. upon the larger quantity. It places in even a stronger point of view the intimate connexion existing between the rate of duty and the progress of consumption, if we examine the effect that has followed upon reductions of the duty. In 1819, in consequence of the progressive falling-off in the manufacture of plate glass,

and consequently in the produce of the duty during the six years in which the high rate had been levied, the duty on that description of glass was lowered from 4*l.* 18*s.* per cwt. to 3*l.* per cwt. The quantity made annually, on the average of three years preceding 1819, was 4905 cwt., yielding 24,035*l.* to the revenue; whereas in the three years following that in which the reduction was made, the average quantity amounted to 9415 cwt., yielding to the revenue 28,244*l.* Since that time the average annual consumption has reached 24,000 cwts., producing upwards of 75,000*l.* annually to the Exchequer.

The pernicious effect of the glass duties was apparent from the contrast exhibited by this manufacture to others not subjected to similar disadvantages; and it cannot be necessary to do more than point to this contrast as an argument in justification of the abandonment of the impost.

There were, however, other reasons, distinct from the direct operations that have been pointed out, which rendered the system under which the glass duties were levied peculiarly pernicious. The free progress of invention and improvement was by this means prevented, not only in the manufacture of glass, but also in many other arts and sciences to which glass is subsidiary. A manufacturer who by his skilful combinations had succeeded a few years since in making great improvements in the quality of bottle glass, was stopped in his operations by the Excise officers, on the plea that the articles which he produced were so good in quality, as not to be readily distinguished from flint glass, to which description a higher rate of duty attached; the danger to the revenue being, that articles made of the less costly and less highly taxed ingredients, would be used instead of flint glass. In every other country but this, and since 1845 in this also, manufacturers are at liberty to make any article of glass out of that particular material or composition which will best answer their purpose; and consequently many articles, the making of which it was contrary to the Excise regulations to permit in our glass-houses, were necessarily imported from the Continent, notwithstanding the heavy rate of duty to which they were subjected at our Custom-houses. Among these may be mentioned glass for optical instruments, which has hitherto been almost wholly imported, because the regulations enforced by the Excise-office so long prevented the carrying forward of processes necessary for imparting to it that property upon which its excellence must altogether depend.

There was yet another reason for abandoning the duty upon home-made glass. The ingredients of which glass is composed are exceedingly cheap, and the art is at the same time so simple, and calls for the use of so few accessaries, that it can be successfully followed by almost any person of ordinary aptitude for manual operations, working with

simple and uncostly implements. The facility with which glass can be made upon a small scale is greater now than formerly, and is continually increasing, through the advance of chemical knowledge. In former times the preparation of alkalis used for the manufacture required premises of considerable dimensions, but the alkali now abundantly obtained from common salt is admirably qualified by its purity for the purpose, and it is well known that flint-glass was fraudulently made in great abundance in small attics and cellars, to the injury alike of the revenue and of the fair-dealing manufacturer. While the temptation was suffered to remain, it was altogether impossible to put a stop to this illicit manufacture, and nothing short of the total repeal of the duty could have proved effectual to that end.

The measure thus advocated was adopted by the legislature in the Session of 1845. Thenceforward the manufacturers of glass, in all its forms, were relieved from the payment of duty, and from the interference of revenue officers. Of the advantageous result of this measure there cannot exist any doubt whatever. The manufacturers immediately reduced their prices, in all cases, to the full amount of the duty, and in many cases beyond it, and it may be confidently predicted, that through the employment of this beautiful material for objects which its price formerly forbade, the manufacture must experience a great, immediate, and permanent extension.

CHAPTER V.

MANUFACTURES.

MACHINERY.

Importance of perfect tools and implements—Recent progress of manufacturing skill in their production—Babbage's calculating machine—Foreign mechanical inventions perfected and adopted in England—Policy of allowing the exportation of machinery—Impossibility of confining the knowledge of improved machines to our own country—Impolicy of the attempt—Laws restraining artisans from going abroad—Their repeal—Footing upon which the limited exportation of machinery is now permitted—Progress of the prohibitive system—Value of machinery exported.

IN no branch of manufacturing skill has more important and rapid progress been made of late years in this country, than in the production of manufacturing implements and machinery. The extent to which this progress has been carried, is such as to make it difficult to point out any leading mechanical process, the details of which have not been, by this means, simplified, and the article produced brought nearer to perfection.

The great importance of this fact to a manufacturing people scarcely needs to be insisted on. Without superior tools and implements, how many valuable inventions now used, and which minister extensively to the advantage and comfort of society, must have remained unapplied, if they had even at all suggested themselves to the minds of the ingenious men by whom they have been conceived! How many elaborate pieces of mechanism, without which those inventions could not be carried into practical operation, must have remained unconstructed for want of the equally elaborate tools necessary for their production, and for those nice adjustments upon which the success of the inventions depends!

The calculating machine of Mr. Babbage, the conception and perfecting of which afford proofs of genius and perseverance—rare in their degree, and still more rare in their combination—that would cast lustre upon any age or country, could not have been executed by means of the imperfect tools which even a very few years ago were in the hands of our most able machinists. To the efforts made for the completion of

this machine, the world is indebted for the possession of some of the most beautiful tools hitherto invented; and if no other benefit should result from this triumph of human thought, the time, and money, and talent bestowed upon the work will have been amply productive to the country, although, as is too frequently seen, the recompense of the inventor may be limited to a barren, and in its highest degree, even to a posthumous fame.

Some part of our cotton-spinning machinery is of foreign invention; but the state of the mechanical arts not being sufficiently advanced for that purpose in their own countries, the inventors have been obliged to resort to English workshops for the means of perfecting their conceptions, and our factories offering at the same time the largest and most profitable field for the employment of these machines, our cotton manufacture has thus fairly profited from ingenuity which it has mainly contributed to foster. One of the most successful spinning frames used in the factories of Lancashire, was the invention of a citizen of the United States of America, and has been thus made available for the more profitable conversion of a material, our largest supply of which is derived from that country.

The necessity for the employment of a high degree of skill in the adjustment of machinery for manufacturing purposes, has been illustrated by Dr. Ure in his work, "The Philosophy of Manufactures," by the following anecdote:—

"A manufacturer of Stockport being, not long ago, about to mount 200 power-looms in his mill, fancied he might save a pound sterling in the price of each by having them made by a neighbour machine-maker, instead of obtaining them from Messrs. Sharp and Roberts, in Manchester, the principal constructors of power-looms. In order to give his fabricator every chance of success, the economist surreptitiously procured iron patterns cast from one of the looms of that Company, which, in its perfect state, costs no more than 9*l.* 15*s.* His 200 looms were accordingly constructed at Stockport, supposed to be fac-similes of those regularly made in Manchester, and they were set to work. Hardly a day passed, however, without one part or another breaking down,—insomuch that the crank or tappet-wheels had to be replaced three times, in almost every loom, in the course of twelve months. The fabric of the cloth was also indifferent. The proprietor, perplexed beyond measure, inquired of a neighbour who worked similar power-looms made by the Manchester machinicians, whether his wheels likewise went to pieces every other day, and learned to his mortification, that not one of them had broken in the course of working, but that the four or five spare ones, originally sent from Manchester along with his 236 power-looms, were unused and quite at his service. The old proverb of 'Penny wise and pound foolish' never had a better illustration. His weaving fac-

tory had been most irregular and unproductive, while that of his neighbour had been uniformly prosperous."

The circumstances that have just been mentioned seem naturally to lead to a consideration of the policy which so long prevailed, of prohibiting the exportation of machinery from this country. It may be conceded that, in cases where an individual or a nation is in the possession of superior manufacturing processes whereby greater profits can be realized, it is natural to use every fair means for keeping those advantages out of the hands of foreign competitors. It is clear that these competitors could have no just reason for complaining, if we preferred our own profit to theirs. Neither would the inventors of the machinery have much cause for complaint, if the legislature should pass laws under which the manufacturers of this country would be secured in the monopoly of home inventions. Machine-makers have, so far, a contrary interest to the manufacturers,—that they are benefited by the extension of the use of their machines, while the apparent advantage of the manufacturers consists in confining that use to themselves. To prohibit the exportation of his wares may therefore, at first sight, appear to be as great a hardship upon the machinist as it would be upon the weaver of cotton, if his productions were confined to the home market; but the cases are not in all respects parallel. By the restriction last supposed, the extension of the weaver's trade would be in a great measure limited to the slow natural increase of the people in the country of production; whereas the confining to that country of a machine, by means of which better or cheaper goods can be made, will be followed by nearly the same effect as if the exportation of the improved machines were allowed, since the greater quantity of goods produced by their means, and for which in consequence of their superiority or cheapness, a foreign demand would be kept up, must cause a greater number of the machines to be used at home, and it can be of no moment to the maker of those machines, whether his customers reside in the United Kingdom, or in France or Germany.

The state of things which has been here supposed cannot, however, have any existence in reality. It has never been found practicable to adopt regulations whereby the exportation of machinery can be wholly prevented. Where the invention is the object of a patent, an accurate and complete drawing and description can be procured by any one without trouble; and by the transmission of these, any engineer of ordinary capacity can in most cases construct a machine which will at least answer as a very tolerable substitute for that made under the inspection of the inventor. In more complicated inventions, it mostly happens that the only part of the machine which is difficult of execution, is of small dimensions, and it is consequently easy to convey it illicitly out of the kingdom. Under these circumstances, it appears to be the most

prudent course to legalize the trade, and thereby to secure for a part of the community a profitable source of employment. Nor would the manufacturers in this kingdom have any right to complain of the facilities thus given to their foreign rivals. The inventions which they would seek to retain for their own advantage have cost them neither labour nor expense. In fact, they can in no case have any plea for such a restriction, except that of the general advantage of the community, and the cases can be but very few in which that plea can be successfully urged. The interest of the bulk of the people must, on the contrary, always be best promoted by that policy which gives the utmost freedom to industry, and which tends to lower the prices of articles of consumption. Laws which prohibit the communication of facilities and improvements are liable to be imitated by other nations, either in a spirit of retaliation, or possibly from a belief in their wisdom, and both these reasons may be expected to operate most freely when the example has been set by a successful and powerful nation. Let us imagine that the American Congress, impressed with the wisdom of our old system of restrictions, or stung with a feeling of jealousy of our manufacturing superiority, had passed, and could have enforced a law forbidding the communication to foreigners of the inventions of American citizens, so that the machines already spoken of as being derived from that country must have been brought into operation there and there only. It is far from being certain that while by the adoption of this course, England would have sustained a considerable injury, the American people would have derived any substantial benefit. In the fair and legitimate course of dealing between two people, it is so far from being true that what one of them gains the other must necessarily lose, that on the contrary, few things are more certain than that both may be, and almost universally will be, gainers by their transactions. But neither does it follow, that in unprofitable dealings, what one loses must be gain to the other; both, on the contrary, may lose, and in the long run, this is almost sure to be the result. In the case supposed, America would lose an excellent customer for a large amount of her raw produce, and her citizens would consequently be deprived of many articles of English manufacture, which they cannot procure so good nor at so cheap a rate elsewhere. The capital required for carrying on the cotton manufacture upon a large scale would be withdrawn by them from other pursuits in which it is profitably embarked, and while a few might possibly be gainers, the many would be subjected to certain loss.

The laws prohibiting the exportation of machinery from this country have been of late years very considerably relaxed, and at length have been repealed. Previous to 1825, the jealousy of our legislature in regard to the progress of foreign manufactures was extended so far as to interfere with the natural right even of working artisans to transfer

their industry to countries where it could be most profitably exerted. Any man who had acquired a practical knowledge of manufacturing processes was thereby rendered a prisoner in his own country; and not only might the arm of the law be interposed to prevent his quitting his native shore, but heavy penalties were imposed upon all persons who should abet the expatriation of one of our artisans. This disgraceful law has happily been expunged from our Statute-book. Its futility and impolicy were well described in the following

"Resolutions of the Committee appointed to inquire into the state of the Law of the United Kingdom, and its consequences, respecting Artisans leaving the Kingdom and residing abroad, &c. Reported to the House of Commons, 21st May, 1824.

"1. That it appears by the evidence before this Committee, that notwithstanding the laws enacted to prevent the seduction of artisans to go abroad, many able and intelligent artisans have gone abroad to reside, and to exercise their respective arts in foreign countries; and that it is extremely difficult, if not impossible, in this country, by any mode of executing the present laws, or by any new law, to prevent artisans who may be so determined from going out of the country.

"2. That although the penalties which the laws inflict on artisans who disobey them, are not distinctly understood by the workmen, yet an unfavourable opinion is generally entertained by them of the partial and oppressive operation of these laws, as preventing them from taking their labour and art to the best market; whilst all other classes of the community are permitted to go abroad, and to take their capital with them wherever they think proper.

"3. That it appears also by evidence, that many British artisans residing abroad have been prevented from returning home, from an erroneous opinion that they have, by going abroad, violated the laws of their country, and consequently incurred penalties under them.

"4. That in the opinion of this Committee, it is both unjust and impolitic to continue these laws; they therefore recommend their entire repeal, and that artisans may be at liberty to go abroad and to return home whenever they may be so disposed, in the same manner as other classes of the community now go and return."

In and after 1825, permission might be had for the exportation of all the more common articles of machinery. A long list was given of various articles or classes of machinery the exportation of which was prohibited, but a discretionary power of relaxing the law was given to the Board of Trade, the branch of the government to which it seems most fitly to belong, and which decided upon each application, as it was made by the persons seeking to export, according to the merits of each particular case.

Under this system, the practice was uniform in regard to so many articles, that but little difficulty was experienced by the merchants, who in general knew as to what machines or implements the indulgence would be extended, and from what it would be withheld, with nearly as much certainty as they would have known if each object had been scheduled in an Act of Parliament. The principal advantage of this discretionary power vested in the Board of Trade consisted in its leaving to that Board the power of regulating the matter according to the changing interests of commerce.

The policy of restricting this, which might become an important branch of trade, was the subject of laborious investigation by Committees of the House of Commons which sat in 1824 and 1825. The concluding paragraph of the report made by the Committee in 1825 explains the reasons why it was thought expedient to leave the list of prohibitions unrepealed, and shows that the result of their inquiry left no doubt on the minds of the members of the Committee as to the inexpediency of the existing system. The paragraph here alluded to is as follows:—

"Although your Committee are impressed with the opinion that tools and machinery should be regulated on the same principles as other articles of manufacture, yet inasmuch as there exist objections in the mind of many of our manufacturers on this subject which deserves the attention of the legislature, and as it is possible that circumstances may exist which may render a prohibition to export certain tools and machines used in some particular manufactures expedient, your Committee beg to recommend that until an alteration can be made in the laws on this subject, H. M. Privy Council should continue to exercise their discretion in permitting the exportation of all such tools and machinery now prohibited as may appear to them not likely to be prejudicial to the trade or manufactures of the United Kingdom."

England is, beyond all other countries, interested in the most perfect freedom being given to this as well as to every other branch of commerce. Placed beyond all comparison at the head of civilization as regards manufacturing skill, with capital far more ample than that possessed by any other people, with cheap and inexhaustible supplies of iron and fuel, and with institutions every way favourable to the utmost development of the industry and ingenuity of her citizens, she must always be able at least to maintain her superiority of position where circumstances are in other respects equal; and be ready to turn to the utmost advantage every improvement which may reach her in common with less powerful rivals.

It is besides more than probable that the system which has been adopted only with the view of protecting manufactures may, like other protective enactments, be actually prejudicial to the interest which it was designed to benefit. The objects as to which prohibition continued

to the last to be enforced were principally connected with the spinning and weaving of cotton, wool, and flax, branches of manufacture in which improvements are continually going forward. The importance of these improvements will be at once understood when it is stated that many among them are calculated to introduce an economy into the process amounting to from 2½ to 5 per cent. upon the cost of the fabric. This advantage it would of course be the object of every manufacturer to realize as speedily as possible; but except in the case of those who possess large capitals, none will care to throw away or to sell at the mere worth of the materials their old machines which have cost considerable sums, and they continue therefore to use them at a disadvantage; whereas, if the markets of the continent of Europe were open to them, in which they might find purchasers for the machines of which they are now in a manner compelled to continue the use, they would not hesitate at once to place themselves in the most advantageous position for carrying on their processes. Their discarded machinery, having the recommendation of cheapness, and being at the same time equal, if not superior, to that in general use abroad, would doubtless meet with ready buyers there.

The first Act passed by the English Parliament for preventing the exportation of machinery is dated in 1696. This Act prohibited the exportation of Lee's stocking-frame, a machine which was invented in 1600. The next in order among these restrictions was passed in 1750, and consequently after an interval of more than half a century. It is worthy of remark, that this Act was intended for the protection of the woollen and silk manufactures. The first of these branches of industry had previously flourished in England for more than 250 years without this protection; and as to the silk manufacture, the tools and utensils employed in which were prohibited from being exported in this Act, it was then only in its infancy among us, and it never took firm root as one of the branches of the national industry until the mounds and fences raised up by the legislature for its protection had been all removed, and it was left to work its way exposed to competition from the then more accomplished artisans of France. Another interval of twenty-four years passed before any further Act of the same nature was passed. The next law passed in 1774, prohibited the exportation of certain tools used in the cotton and linen manufacture. From that time the system of prohibition appears to have been in great favour with the legislature; the Acts which were passed forbidding the exportation of implements having followed each other with rapidity, and descending some of them to objects of a very trifling nature, such as "presses and dies for horn buttons," "engines for covering whips," "tools for pinching of glass"—in fact, anything for which it appears to have been thought worth while on the part of any class of manufacturers to seek what they considered protection at the

hands of the legislature through a monopoly of the implements required for the production of their goods.

The subject having again been brought under the consideration of a Committee of the House of Commons, principally at the urgent instance of the members of our chief manufacturing towns, and a report having been made recommending the removal of all remaining restrictions, a clause to that effect was inserted in the Customs Duty Bill, 6 and 7 Victoria, c. 84, and machinery of all kinds may now be as freely exported as any other British manufacture. It is early yet to judge correctly of the consequences of this measure, which took effect from August, 1843. It has indeed, been followed by one result which could hardly have been anticipated. The French Government, which had offered as an excuse for augmenting the import duty upon linen yarn, our refusal to allow the exportation of flax-spinning machinery, and the consequent disadvantage at which French spinners were placed, have, now that the repeal is withdrawn, lent a favourable ear to the representations of their machine-makers, and have placed a heavy import duty upon the very article the withholding of which from them was represented as a grievance.

Considering the perfection to which this branch of manufacture has been brought in this country, the value of machinery exported under this system of restriction has been quite insignificant, so far, at least, as undisguised trade is concerned. The following table shows the declared value of the shipments of machinery and mill-work in each year from 1822 to 1849 :—

Years.	£.	Years.	£.	Years.	£.
1822	116,220	1832	92,715	1841	551,361
1823	157,146	1833	127,064	1842	554,653
1824	120,644	1834	211,982	1843	713,474
1825	212,420	1835	307,951	1844	776,255
1826	228,505	1836	302,092	1845	904,961
1827	201,822	1837	493,468	1846	1,117,470
1828	262,115	1838	627,430	1847	1,263,016
1829	253,984	1839	683,285	1848	817,656
1830	207,767	1840	593,064	1849	700,631
1831	105,491				

The increase in the amount during the last ten years of the series is caused mainly by greater shipments to Europe. Before that time, at least one-half of the value of the shipments was made up by the demands of our own colonies and dependencies. How far this condition of things has been altered will be seen by the following figures, which show the value of machinery shipped to foreign countries in Europe :—

Years.	£.	Years.	£.	Years.	£.
1831	29,030	1837	280,154	1843	536,560
1832	44,095	1838	389,369	1844	578,969
1833	58,551	1839	431,201	1845	596,124
1834	104,267	1840	374,036	1846	752,910
1835	152,159	1841	325,992	1847	851,436
1836	166,432	1842	363,099	1848	588,229

In the extraordinary state of progression that has attended the various branches of our staple manufactures, and of our mining operations, the system of prohibition as affecting the exportation of machinery has not produced so much effect as might have been expected upon the prosperity of our machinists. Their trade has partaken of the general extension, but certainly not to the degree that would have attended it under a different system. At the present moment, our engineers and millwrights may be said to have as much work upon their hands as the number of their workmen enables them to undertake, and skilled artisans, such as they must employ, are not to be formed without a long course of instruction.

It would fill many large volumes to describe the numerous inventions which during the present century have imparted facility to our manufacturing processes, and given perfection to the articles made. It will not be expected, therefore, that any enumeration of those inventions should be attempted in these pages. A description of all the improvements which have been made in steam-machinery alone, since the beginning of this century, would lead to investigations that could be profitably entered upon only in a treatise on mechanics.

CHAPTER VI.

MINING.

Early celebrity of the mines of England — Iron — Quantity made at different periods from 1740 to 1848—Tin—Produce of Cornish mines from 1750—Increase since 1814 —Imports and exports of foreign tin—British tin exported—Value of tin-plates exported—Copper—Produce of Cornish mines from 1771 to 1786, and 1796 to 1848— Total produce of English mines from 1820 to 1834—Value of tin and copper raised in Cornwall at different periods during the present century—Lead—Concealment practised by mine-owners as to the quantity of metal produced—Coal—Advantage of steam-engine in coal-mining—Davy's safety-lamp—Its effect in increasing the product of coal-mines— Shipments from Newcastle and Sunderland in each year from 1801 to 1849—Shipments from Stockton and Seaham—Prices of Coal at Newcastle and Sunderland in each of those years—Prices in London from 1813 to 1850—Quantity of Coals shipped from various parts of the kingdom from 1819 to 1849—Produce of inland collieries—Salt—Quantity annually produced—Reduction and repeal of Excise-duty on salt—Quantity annually consumed since 1801—Quantity exported from 1827 to 1849—Increased consumption since repeal of duty.

FROM the very earliest period to which record or even tradition can reach, this country has been celebrated for its mineral treasures. It is not intended to carry back our inquiries to the time when the Phœnicians traded to "the tin islands of Britain," described by Herodotus under the name of *Cassiterides*, or to discuss whether the rings and money of iron which Cæsar states to have been in the possession of the Britons, at the time of the Roman invasion, were really the produce of this country, or whether, as some persons have supposed, they were acquired in barter for tin. Our inquiry into the progress of mining as a source of national wealth must necessarily be limited to a period comparatively recent, and to statements of the results.

No statement has ever been made which pretends to perfect accuracy in regard to our production of iron.

The quantity made in England and Wales in 1740 was estimated at 17,350 tons, the produce of fifty-nine furnaces, in which only charcoal was used. Between that time and 1788 the plan of smelting iron-ore by means of coke was introduced, and in the latter year there were in England, Wales, and Scotland, eighty-five furnaces, producing annually 68,300 tons of iron, of which quantity 55,200 tons were smelted with coke. In 1796, in consequence of a tax projected by Mr. Pitt, upon coals at the pit, but which was not imposed, a careful inquiry was made as to the condition and extent of the iron-works that would have been affected by such a measure. On this occasion it appeared that there were—

			Tons of Iron.
In England and Wales	104	furnaces, producing	108,793
„ Scotland . . .	17	„ „	16,086
Total . .	121	„ „	124,879

In 1802 it was further estimated that forty additional furnaces were in use in England and Wales, and seven in Scotland—the total annual production of iron amounting to 170,000 tons in the year. In 1806 a Bill was introduced into the House of Commons by the Minister for imposing a duty of 2*l.* per ton upon all pig-iron made in the kingdom. This Bill was afterwards withdrawn, but the attempt occasioned inquiries to be set on foot respecting the quantity of metal produced, and it was stated then to amount to 250,000 tons annually.

The following estimate, beginning with 1823, is said to have been made with great care by the manager of one of our largest iron smelting establishments. The tables already given of the consumption of foreign iron, and the exportation of that of home manufacture, when coupled with the undoubted fact that this metal is used in the kingdom to a continually growing extent, and that it is now used for purposes to which it was never before applied, sufficiently attest the increasing productiveness of our iron-works:—

	1823	1825	1828	1830
	Tons.	Tons.	Tons.	Tons.
South Wales . . .	182,325	223,520	279,512	277,643
Staffordshire . . .	133,590	171,735	219,492	212,604
Shropshire. . . .	57,923	86,320	81,224	73,418
Yorkshire	27,311	35,308	32,968	28,926
Scotland	24,500	29,200	37,700	37,500
Derbyshire . . .	14,038	19,184	22,360	17,999
North Wales . . .	..	13,100	25,168	..
Other places . . .	2,379	3,000	4,160	5,327
Total . .	442,066	581,367	702,584	653,417

The quantities contained in this table agree with the evidence given before the Committee on Import Duties in 1840, by Sir John Guest, the proprietor of the Dowlais iron-works in Glamorganshire. According to Sir John Guest, the manufacture remained stationary between 1823 and 1831, when it again began to advance, and in 1835 there were good grounds for estimating the quantity made at a million of tons. In the following year the estimate was 1,200,000 tons, and in 1840 it reached 1,500,000 tons. A statement was prepared in October of that year by one of our most intelligent iron-masters,* giving the number of furnaces in blast and out of blast, and the number of tons of iron made at each work in *Great Britain*. It was there shown that the annual product, exclusive of Ireland, amounted to 1,396,400 tons; the number of furnaces in blast was 402, of which number 162 employed the process of blasting with hot air. The manufacture was in this statement distributed as

* Mr. Jessop, of Butterley, in Derbyshire.

follows among the various divisions of the kingdom, and an estimate was offered of the quantity of coal used in the manufacture, viz.:—

	Tons of Iron Made.	Tons of Coal Used.
Forest of Dean	15,500	60,000
South Wales	505,000	1,436,000
North ,,	26,500	110,000
Northumberland	11,000	38,500
Yorkshire	56,000	306,500
Derbyshire	31,000	129,000
North Staffordshire	20,500	83,000
South ,,	407,150	1,582,000
Shropshire	82,750	409,000
Scotland	241,000	723,000
	1,396,400	4,877,000
Coals used in converting to wrought iron		2,000,000
Total		6,877,000

The commercial depression, which continued for about four years after Mr. Jessop's statement was compiled, led our iron-masters to diminish the scale of their operations in order thereby to lessen their losses. A statement was drawn up in 1842, under the direction of an association of the Yorkshire and Derbyshire iron-masters, showing the quantity of iron made during the first six months of that year, in Yorkshire, Derbyshire, Staffordshire, Shropshire, South Wales, and Scotland, as under:—

	Tons.		Tons.
Yorkshire	23,471	South Wales	158,715
Derbyshire	13,795	Scotland	135,460
Staffordshire	151,130		
Shropshire	40,643	Together	523,214 Tons

equal to 1,046,428 tons per annum. The quantity made in the above divisions of the kingdom, in 1840, according to Mr. Jessop, was 1,343,400 tons,—showing a diminished production at the rate of 296,972 tons, or more than 22 per cent.

The number of furnaces in and out of blast, and the quantity of iron made in different parts of Great Britain, in each of the years 1847 and 1848, is here given upon what is considered good authority:—

	FURNACES.				IRON MADE.	
	In Blast.		Out of Blast.			
	1847	1848	1847	1848	1847	1848
	No.	No.	No.	No.	Tons.	Tons.
North Staffordshire	16	14	3	7	65,520	67,080
South ,,	77	112	62	25	320,320	465,920
Shropshire	28	31	6	4	88,400	111,020
Derbyshire	20	20	10	10	95,160	78,000
Yorkshire	23	20	5	11	67,600	59,800
Newcastle-on-Tyne	24	17	12	15	99,840	94,380
North Wales	5	5	6	9	16,120	22,256
South ,,	151	139	45	57	706,680	631,280
Scotland	89	94	41	36	539,968	564,000
	433	452	190	174	1,999,608	2,093,736

Records of the produce of the tin and copper mines of Cornwall were long kept with considerable regularity. The following table shows the produce of the Cornish tin mines, according to these records, from 1750 to the most recent period recorded:—

Years.	Tons.	Years.	Tons.	Years.	Tons.	Years.	Tons.
1750	2,876	1772	3,159	1793	3,202	1814	2,611
1751	2,273	1773	2,852	1794	3,351	1815	2,941
1752	2,550	1774	2,458	1795	3,440	1816	3,348
1753	2,516	1775	2,619	1796	3,061	1817	4,120
1754	2,714	1776	2,652	1797	3,240	1818	3,745
1755	2,757	1777	2,770	1798	2,820	1819	3,068
1756	2,774	1778	2,515	1799	2,862	1820	2,775
1757	2,752	1779	2,678	1800	2,522	1821	3,132
1758	2,720	1780	2,926	1801	2,328	1822	3,137
1759	2,637	1781	2,610	1802	2,627	1823	4,031
1760	2,717	1782	2,546	1803	2,914	1824	4,819
1761	2,395	1783	2,570	1804	2,993	1825	4,170
1762	2,584	1784	2,685	1805	2,742	1826	4,406
1763	2,736	1785	2,885	1806	2,855	1827	5,316
1764	2,618	1786	3,309	1807	2,426	1828	4,696
1765	2,757	1787	3,204	1808	2,330	1829	4,330
1766	3,055	1788	3,352	1809	2,508	1830	4,183
1767	2,850	1789	3,405	1810	2,006	1831	4,093
1768	2,667	1790	3,198	1811	2,384	1832	3,988
1769	2,898	1791	3,470	1812	2,373	1833	3,791
1770	2,977	1792	3,809	1813	2,324	1834	4,180
1771	2,823						

The trifling degree of fluctuation observable in the amount of metal produced throughout the whole period embraced by this table, with the exception of the last twenty years, is very remarkable. If the whole ninety-five years are divided into periods of five years, the average produce will be as follows:—

Years.	Tons.	Years.	Tons.
1750 to 1754	2,585	1795 to 1799	3,084
1755 „ 1759	2,728	1800 „ 1804	2,676
1760 „ 1764	2,610	1805 „ 1809	2,572
1765 „ 1769	2,845	1810 „ 1814	2,339
1770 „ 1774	2,853	1815 „ 1819	3,444
1775 „ 1779	2,647	1820 „ 1824	3,578
1780 „ 1784	2,667	1825 „ 1829	4,595
1785 „ 1789	3,249	1830 „ 1834	4,047
1790 „ 1794	3,405		

The increase observable in the produce of the last twenty years is the more remarkable, because, within that time, the produce of the tin mines of Banca has been greatly augmented. Until 1817 the mines of Cornwall afforded a considerable supply of this metal to China, the shipments amounting in some years to 800 tons; but since the restoration of the island of Banca to the Dutch, its mines have been rendered so productive as to supply the markets of China and India, and to furnish in addition a large quantity of tin for the continent of Europe.

The importations and re-exportations of foreign (Banca) tin during the last thirty years have been—

Years.	Imported.	Re-exported.	Years.	Imported.	Re-exported.	Years.	Imported.	Re-exported.
	Cwts.	Cwts.		Cwts.	Cwts.		Cwts.	Cwts.
1820	1,309	3,047	1830	15,539	10,426	1840	9,391	6,594
1821	1,106	652	1831	8,099	12,226	1841	28,435	25,345
1822	1,536	1,909	1832	29,203	21,720	1842	11,112	12,412
1823	6,461	5,502	1833	35,124	39,850	1843	31,186	13,007
1824	6,420	4,709	1834	46,769	46,685	1844	12,085	19,153
1825	4,213	4,709	1835	19,704	23,795	1845	25,568	18,347
1826	3,394	5,647	1836	23,335	17,231	1846	5,262	21,039
1827	2,217	2,938	1837	29,101	29,216	1847	23,307	11,471
1828	3,386	3,258	1838	30,723	29,034	1848	5,979	8,341
1829	2,674	2,581	1839	18,241	22,766	1849	35,826	8,940

Notwithstanding the competition thus experienced by the tin miners of Cornwall, the demand from foreign countries for English tin has continued to be considerable, and the exportation of tin plates has of late increased.

The quantities of British tin exported have been—

Years.	Cwts.	Years.	Cwts.	Years.	Cwts.	Years.	Cwts.
1820	25,852	1828	41,427	1836	11,152	1843	36,396
1821	29,229	1829	33,215	1837	17,271	1844	22,216
1822	35,843	1830	30,425	1838	25,086	1845	11,526
1823	26,364	1831	21,763	1839	29,307	1846	23,903
1824	36,890	1832	31,838	1840	36,885	1847	34,882
1825	34,237	1833	24,989	1841	23,340	1848	35,946
1826	43,645	1834	9,351	1842	61,763	1849	35,292
1827	49,474	1835	7,765				

No record is kept at the Custom-house of the *quantity* of tin plates exported, but the progress of this branch of industry may be inferred from the following statement of the *value* of the annual exportations, as declared by the merchants at the time of shipment:—

Years.	£.	Years.	£.	Years.	£.	Years.	£.
1815	275,136	1824	233,115	1833	268,742	1842	363,685
1816	289,390	1825	185,251	1834	324,559	1843	427,994
1817	239,062	1826	223,460	1835	381,076	1844	506,691
1818	277,458	1827	281,958	1836	387,951	1845	637,507
1819	167,843	1828	245,453	1837	371,848	1846	659,851
1820	160,671	1829	212,526	1838	459,176	1847	485,073
1821	161,299	1830	231,922	1839	372,026	1848	553,175
1822	175,280	1831	215,446	1840	360,816	1849	727,825
1823	209,143	1832	231,652	1841	390,621		

The English tin miner had long a fancied protection against the foreign producer by an import duty of 50*s.* per cwt. This duty was reduced in 1842 to 6*s.* per cwt.: both rates being equally inoperative, since our production of this metal is uniformly greater than our consumption, under which state of things it would be absurd to suppose that any foreign produce could enter injuriously into competition with that of our own mines.

The produce of the copper mines of Cornwall has increased in a much greater proportion than that of the tin mines, as appears by the following statement of the annual produce of the former from 1771 to 1786, and from 1796 to 1848:—

Years.	Tons.	Years.	Tons.	Years.	Tons.	Years.	Tons.
1771	5,347	1796	4,950	1814	7,936	1832	11,947
1772	3,356	1797	5,210	1815	6,607	1833	11,191
1773	3,320	1798	5,600	1816	7,045	1834	11,224
1774	3,630	1799	4,923	1817	6,608	1835	12,270
1775	3,596	1800	5,187	1818	6,714	1836	11,647
1776	3,532	1801	5,267	1819	7,214	1837	10,823
1777	3,386	1802	5,228	1820	7,364	1838	11,527
1778	2,965	1803	5,616	1821	8,163	1839	12,450
1779	3,734	1804	5,374	1822	9,331	1840	11,037
1780	2,932	1805	6,234	1823	7,928	1841	9,987
1781	3,450	1806	6,863	1824	7,824	1842	9,896
1782	3,375	1807	6,716	1825	8,226	1843	10,926
1783	4,296	1808	6,795	1826	9,026	1844	11,246
1784	4,396	1809	6,821	1827	10,311	1845	12,239
1785	4,434	1810	5,682	1828	9,921	1846	12,448
1786	4,787	1811	5,948	1829	6,656	1847	11,966
		1812	7,248	1830	10,748	1848	12,870
		1813	8,166	1831	12,043		

The productive power of the Cornish copper mines has thus been increased more than threefold in the last sixty years. No statement can be given of the total quantity of copper raised in the United Kingdom before 1820; from that year until 1834 the produce was—

Years.	Tons.	Years.	Tons.	Years.	Tons.	Years.	Tons.
1820	8,127	1824	9,705	1828	12,188	1832	14,450
1821	10,288	1825	10,358	1829	12,057	1833	13,260
1822	11,018	1826	11,093	1830	13,232	1834	14,042*
1823	9,679	1827	12,326	1831	14,685		

The value of this metal now annually raised in the kingdom exceeds one million sterling, being more than double the value of the quantity annually produced in the beginning of the present century.

The money value of the tin and copper raised in the county of Cornwall at different periods of the present century, has been—

Years.	——		Total.	Price per Ton.	
				Tin.	Standard of Copper.
		£.	£.	£. s. d.	£.
1801	Tin . .	254,722	731,035	101 0 0	117
	Copper .	476,313			
1806	Tin . .	344,027	1,074,872	120 10 0	138
	Copper .	730,845			
1811	Tin . .	337,336	901,078	141 10 0	126
	Copper .	563,748			
1816	Tin . .	383,346	925,083	114 10 0	109
	Copper .	541,737			
1821	Tin . .	242,730	871,562	77 10 0	111
	Copper .	628,832			
1826	Tin . .	348,074	1,137,045	79 0 0	123
	Copper .	788,971			
1831	Tin . .	300,845	1,106,935	73 10 0	100
	Copper .	806,090			
1834	Tin . .	321,860	1,209,762	77 0 0	114
	Copper .	887,902			

* The produce of copper smelted since 1834 from English ore cannot be accurately distinguished from that of foreign origin. The following quantities are offered as an approximate to the truth :—

Years.	Tons.	Years.	Tons.	Years.	Tons.	Years.	Tons.
1835	14,470	1838	12,570	1841	12,850	1846	14,950
1836	14,770	1839	14,670	1844	14,840	1847	13,780
1837	10,150	1840	13,020	1845	14,900	1848	14,720

The value of metallic copper smelted in England, from native and from foreign ore, in each year from 1844 to 1848, as given in the Mining Almanac, was as follows:—

Years.	From British Ore.	From Foreign Ore.	Total.
	£.	£.	£.
1844	1,089,603	1,006,851	2,096,454
1845	1,028,535	796,528	1,827,063
1846	1,073,924	848,677	1,922,601
1847	965,661	690,038	1,655,699
1848	943,846	631,643	1,575,489

The increase thus shown in the value since the peace, and which apparently amounts to more than 60 per cent., is really much beyond that rate. In 1813, the last year of the war with France, the price of tin was 134*l.*, and of copper 113*l.* per ton, estimated in a currency depreciated to the extent of 29 per cent. If the copper and tin produced in Cornwall in that year had been exchanged for gold at their market prices, they would have procured only 181,270 ounces of the more precious metal; whereas the produce of 1834, if similarly exchanged, now that the currency has been restored to its par value, would procure 310,693 ounces of gold, showing an increase in the real value over the produce of 1813 of 71 per cent.

There are no means by which to ascertain the progress made at any time in the productiveness of the lead mines of this kingdom. To answer private purposes, the individuals by whom some of the most productive of those mines are worked, studiously conceal the amount of metal which they raise. Various conjectural estimates have been made as to that amount, but little dependence can be placed upon their accuracy; and even if we could determine which of those estimates is nearest to the truth, this would afford no help towards forming a comparison between different periods. Neither is any light thrown upon the subject by our Custom-house records, since the amount of our exports of lead is, in a great, degree, governed by the comparative productiveness of the mines of other countries, and particularly by those of Adra in Spain. The extent to which these are wrought appears to fluctuate considerably from one year to another.

The value of the mineral products of England would be greatly inferior to what it actually is, were it not for the abundant supply of good coal found in various districts of the kingdom. It cannot here be necessary to point out the many advantages which we derive from the possession of our coal mines, the sources of greater riches than ever issued from the mines of Peru, or from the diamond grounds at the base of the Neela Mulla mountains. But for our command of fuel, the inventions of Watt and Arkwright would have been of small account, our iron mines must long since have ceased to be worked, and nearly every important branch of manufacture which we now possess must have been rendered impracticable, or at best have been conducted upon a comparatively insignificant scale.

If, on the one hand, our great mechanical inventions owe so much to the abundance and consequent cheapness of our fuel, it is no less true that some of these inventions have, on the other hand, materially assisted of late years in bringing about that abundance. But for the invention of the steam-engine, a large proportion of the coal mines now profitably worked could not have been opened, or must have been abandoned. It is well known that, by the consumption of one bushel of coals in the furnace of a steam-boiler, a power is produced which in a few minutes will raise 20,000 gallons of water from a depth of 350 feet; an effect which could not be produced in a shorter time than a whole day, through the continuous labour of twenty men working with the common pump. By thus expending a few pence, an amount of human labour is set free, to employ which would have cost 50*s.*; and yet this circumstance is so far from having diminished the demand for human labour, even in the actual trade where the economy is produced, that it has certainly caused a much greater number of persons to be employed in coal-mining than could otherwise have been so set to work. Another advantage which coal-miners more especially have received from the hand of science is derived from the safety-lamp of Davy—a discovery which, if estimated by the amount of the actual good it has done, must be considered one of the greatest made in our age and country. Many productive mines are now wrought, and old collieries have been re-opened, which must have lain useless but for the invention of the Davy lamp.

The science of mining in all its branches has, besides, made great advances within the present century. It was stated by the Rev. Adam Sedgwick, Woodwardian Professor of Geology in the University of Cambridge, in his examination in 1830 before a Committee of the House of Commons, that "a great deal of coal appears formerly to have been left under ground, in consequence of a want of general plans or maps of the underground workings; a number of excavations have taken place, independently of each other, and the consequence is, there is a great number of piers or large barriers between the old coal-works, some of which it may be almost impossible to remove." It was likewise the custom in working the mines, to leave large pillars of coal, in order to support the roof; so that at the depth of 100 fathoms, little more than 40 per cent. of the coal was abstracted, and the remainder was given up as lost. In 1795 an attempt was made to substitute wooden pillars for a part of the coal previously left, and this, to a certain extent, was successful. At that time it was not attempted to remove more than one-half of each alternate pillar of coal, still leaving between 40 and 50 per cent. of the coal in the mine. In 1810 an improvement in this system was introduced, by means of which every intermediate pillar was wholly removed, and a part of the adjoining pillars was likewise taken away; and by working thus, about 80 or 90 parts out of every 100 were brought to market. It was in the year 1815 that Sir Humphry Davy

brought the safety-lamp into use, and, in the opinion of Mr. Buddle, an intelligent and experienced coal-engineer, who was examined in 1830 before the Committees of Lords and Commons concerning the coal trade, "this operated as a complete renovation to many of the collieries which were then in a state of exhaustion. By its means, combined with the system of artificial propping, every particle of coal can now be got out of the mine before it is abandoned."

The following tables, exhibiting the amount of shipments of coals made from the Tyne and the Wear in each year, from 1801 to 1849, may throw some light upon this subject. It appears from these tables, that the average annual shipments from Newcastle and Sunderland, in the five years ending with 1818, exceeded the average shipments of the preceding five years, by upwards of 300,000 tons, or 12½ per cent. If those preceding five years are compared with the five years ending with 1835, it will be found that the increased shipments in the latter period amount to 900,000 tons per annum; being more than 35 per cent. beyond the shipments at the earlier period, and exceeding the shipments during the first five years of the century by more than fifty per cent., and if we carry forward the comparison to the five years ending with 1849, it will be found that the average shipments exceeded those made during the last five years of the war, viz., 1809 to 1813, by 2,997,985 tons, being 117 per cent. increase, and exceeding the shipments between 1801 and 1805, by 142 per cent.

Table of the Quantity of Coals shipped from the Port of Newcastle in each Year from 1801 *to* 1849, *distinguishing the Shipments Coastwise from those made to Foreign Parts.*

Years.	Coastwise.	To Foreign Parts.	Total.	Years.	Coastwise.	To Foreign Parts.	Total.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1801	1,198,308	133,562	1,331,870	1826	2,099,867	165,943	2,265,810
1802	1,310,393	116,600	1,426,993	1827	1,811,924	173,355	1,985,279
1803	1,338,613	117,548	1,456,071	1828	1,921,467	157,211	2,078,678
1804	1,536,812	139,360	1,676,172	1829	1,956,829	163,380	2,120,209
1805	1,464,991	131,366	1,596,357	1830	2,167,355	197,308	2,364,663
1806	1,558,934	123,710	1,682,644	1831	2,097,617	161,247	2,258,864
1807	1,404,367	76,674	1,481,041	1832	1,809,412	197,337	2,006,749
1808	1,640,681	42,402	1,683,083	1833	1,926,205	233,709	2,159,914
1809	1,428,610	36,143	1,464,753	1834	2,022,226	230,342	2,252,568
1810	1,643,977	45,733	1,689,710	1835	2,266,531	313,107	2,579,638
1811	1,678,401	47,528	1,725,929	1836	2,280,713	415,849	2,696,562
1812	1,671,177	66,210	1,737,387	1837	2,392,494	476,157	2,868,651
1813	1,548,087	39,116	1,587,203	1838	2,459,728	554,175	3,013,903
1814	1,720,250	84,763	1,805,013	1839	2,159,321	558,052	2,717,373
1815	1,723,054	112,450	1,835,504	1840	2,281,343	593,911	2,875,254
1816	1,797,100	116,025	1,913,125	1841	2,397,977	750,585	3,148,562
1817	1,650,889	137,262	1,788,151	1842	2,350,480	866,281	3,216,761
1818	1,780,458	126,521	1,906,979	1843	2,289,531	815,434	3,104,965
1819	1,695,965	105,297	1,801,262	1844	1,999,398	602,152	2,601,550
1820	2,004,759	118,788	2,123,557	1845	2,443,982	1,069,737	3,513,719
1821	1,834,650	127,457	1,962,107	1846	2,302,606	1,064,327	3,366,933
1822	1,736,171	143,365	1,879,536	1847	2,618,941	1,009,641	3,628,582
1823	1,958,109	121,391	2,079,500	1848	2,273,674	994,299	3,267,973
1824	1,822,148	129,966	1,952,114	1849	2,143,380	834,005	2,977,385
1825	1,820,626	136,266	1,956,892				

Table of the Quantity of Coals shipped from the Port of Sunderland in each Year, from 1801 *to* 1849, *distinguishing the Shipments Coastwise from those made to Foreign Parts.*

Years.	Coastwise.	To Foreign Parts.	Total.	Years.	Coastwise.	To Foreign Parts.	Total.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1801	612,197	12,607	624,804	1826	1,455,988	38,419	1,494,407
1802	808,449	82,694	891,143	1827	1,387,109	39,625	1,426,734
1803	792,207	26,942	819,149	1828	1,350,354	60,743	1,411,097
1804	793,812	11,029	804,841	1829	..	..	1,497,059
1805	830,263	15,782	846,045	1830	..	..	1,387,426
1806	811,618	7,424	819,042	1831	..	..	1,256,396
1807	775,987	11,331	787,318	1832	..	..	1,201,152
1808	923,850	5,455	929,305	1833	1,176,176	176,487	1,352,663
1809	858,944	2,579	861,523	1834	952,087	149,956	1,102,043
1810	982,388	5,086	987,474	1835	929,187	154,538	1,083,725
1811	876,996	4,583	881,579	1836	971,458	170,367	1,141,825
1812	897,964	8,343	906,307	1837	932,135	242,463	1,174,598
1813	919,947	4,715	924,662	1838	948,429	308,168	1,256,597
1814	989,090	29,228	1,018,318	1839	913,960	370,620	1,284,580
1815	895,443	45,021	940,464	1840	868,228	442,987	1,311,215
1816	1,027,371	42,215	1,069,586	1841	937,995	408,515	1,346,510
1817	964,250	30,811	995,061	1842	859,231	364,886	1,224,117
1818	1,038,245	41,973	1,080,218	1843	877,451	305,991	1,183,442
1819	1,002,893	40,995	1,043,885	1844	826,702	220,434	1,047,136
1820	1,102,327	38,227	1,140,554	1845	1,536,654	428,400	1,965,054
1821	1,050,443	38,624	1,089,067	1846	1,582,218	478,505	2,060,723
1822	1,051,840	43,509	1,095,349	1847	1,871,171	476,446	2,347,617
1823	1,317,385	41,198	1,358,583	1848	1,911,812	498,158	2,409,970
1824	1,301,645	42,082	1,343,727	1849	1,771,215	447,280	2,218,495
1825	1,382,759	41,157	1,423,916				

Within the last few years, a considerable coal business has been carried on from the port of Stockton, on the river Tees, and from Seaham, an artificial harbour, on the coast between the Tees and the Wear, to which a railroad has been carried from one of the largest collieries in the northern district. The first shipment of coals from Stockton occurred in 1822, when the total quantity was only 1224 tons. This shipment appears to have arisen from some accidental circumstance; for no further shipments from that port occurred until 1826. No return was made during the four years from 1829 to 1832 inclusive, in which time Seaham harbour was completed; but from 1833, the shipments from that place and Stockton, with which port it is connected for revenue purposes, have been regularly included in the Parliamentary Returns. If the quantity sent from Stockton be added to the shipments from Newcastle and Sunderland, which are the shipping ports whence these exports would previously have been made, it will be found that the shipments in 1849 exceeded those of 1801 by 3,754,328 tons: being 190 per cent. increase upon the shipments of 1801, and 102 per cent. increase upon those of 1814.—*See* page 277.

The progressive increase in the shipments from the Newcastle coal district, as shown by these tables, has not been the result of any stimulus given by advancing prices. The rates at which coals have been sold in London do not afford any correct view of the prices paid to the coal-owners, because the freight and charges incurred in convey-

Quantity of Coals shipped from the Port of Stockton from 1822 *to* 1849, *distinguishing the Shipments Coastwise from those made to Foreign Parts.*

Years.	Coastwise.	To Foreign Parts.	Total.	Years.	Coastwise.	To Foreign Parts.	Total.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1822	1,224	..	1,224	1840	1,367,532	132,842	1,500,374
1826	10,754	..	10,754	1841	1,483,618	169,345	1,652,963
1827	32,182	..	32,182	1842	1,501,596	180,808	1,862,404
1828	66,051	..	66,051	1843	1,446,069	224,593	1,670,662
1833	578,800	3,700	582,500	1844	1,415,638	237,166	1,652,804
1834	623,484	9,988	633,472	1845	816,359	128,626	944,985
1835	677,941	26,840	704,781	1846	662,279	148,110	810,389
1836	916,440	36,943	953,383	1847	727,812	134,073	861,885
1837	1,145,837	46,516	1,192,353	1848	556,950	105,094	662,044
1838	1,219,938	86,699	1,306,637	1849	402,225	112,897	515,122
1839	1,308,778	111,707	1,420,485				

ing them to the metropolis are constantly varying; and this will be found especially the case, if a comparison is made between years of war and peace. The anxiety that has long been shown by the Legislature to shield the consumers of coals in London from unfair practices on the part of the dealers, has led to the compulsory registration of prices. So long ago as the reign of Queen Anne, an Act was passed, requiring the shipper of coals to give a certificate with each cargo, setting forth the quantity, quality, and price paid for the same; and this certificate, on the arrival of the ship in London, was delivered to an officer at the Mansion House, for the inspection of the public. The prices in these certificates are stated, up to 1825, for Newcastle chaldrons of 53 cwts. each; from that time until 1832, the imperial chaldron, equal to 25½ cwts., was the standard; and since 1832, the rates have been given per ton weight. To simplify the matter the prices for the whole period here given, viz., from 1801 to 1845, are reduced to those paid per ton:—

Statement of the Prices paid at Newcastle and Sunderland for Coals of the first Quality shipped for London, at the beginning of June in each year, from 1801 *to* 1845.

Years.	Per Ton.	Years.	Per Ton.	Years.	Per Ton.
	s. d.		*s. d.*		*s. d.*
1801	10 4	1816	13 0	1831	12 4
1802	10 4	1817	13 0	1832	12 3
1803	10 4	1818	13 0	1833	10 6
1804	11 6	1819	13 0	1834	10 9
1805	11 6	1820	13 0	1835	11 0
1806	11 6	1821	12 8	1836	10 6
1807	11 6	1822	11 11	1837	10 0
1808	11 6	1823	12 8	1838	10 6
1809	13 0	1824	13 0	1839	10 6
1810	13 0	1825	12 8	1840	10 6
1811	13 0	1826	13 6	1841	10 6
1812	13 0	1827	13 6	1842	10 0
1813	13 0	1828	13 6	1843	10 0
1814	13 0	1829	12 9	1844	10 0
1815	13 0	1830	12 4	1845	8 0

The price in the years from 1846 to 1850 has been between 9*s.* and 10*s.* per ton.

The best quality of coals is given in all cases; and the period chosen for the quotation is the beginning of June in each year, at which time there is less probability of accidental fluctuations than during the winter season.

The following statement of prices paid in London, in July of each year, from 1813 to 1850, will show how materially the inhabitants of this city have benefited through the reduction, and subsequently the repeal, of the duty charged upon sea-borne coals. It also exhibits the rate of freight and charges between Newcastle and the river Thames.

Statement of the Prices of the best Newcastle Coals at the Coal Exchange, London, in the Month of July in every Year, from 1813 *to* 1850.

Duty 7*s.* 6*d.* per Ton.		Duty 4*s.* per Ton.		Duty repealed.			
Years.	Per Ton.	Years.	Per Ton.	Years.	Per Ton.	Years.	Per Ton.
	s. *d.*		*s.* *d.*		*s.* *d.*		*s.* *d.*
1813	42 0	1824	33 4	1835	20 3	1843	20 3
1814	44 8	1825	23 6	1836	21 9	1844	24 6
1815	39 0	1826	25 3	1837	22 9	1845	17 3
1816	34 8	1827	28 3	1838	22 9	1846	14 6
1817	31 9	1828	27 6	1839	23 0	1847	17 0
1818	32 9	1829	23 6	1840	22 9	1848	14 6
1819	30 7	1830	27 6	1841	20 3	1849	15 6
1820	30 7	1831	22 9	1842	20 6	1850	13 6
1821	32 6	1832	19 6				
1822	30 4	1833	15 9				
1823	33 4	1834	19 0				

The table next offered shows that the quantity of sea-borne coals, the produce of our mines, has been increased since 1819, from 4,365,040 to 11,380,745 tons in 1849, or at the rate of 160 per cent.—*See* page 279.

The quantity of coals, of the transmission of which any record can be kept at our Custom-houses, exhibits, however, but very imperfectly the progress of the supply of this kind of fuel. The seat of various manufactures having in great part been determined by the presence, in certain districts, of cheap fuel, and the growth of population having by that means been greatest in or near to some of our principal coal-fields, the quantity of fuel brought into consumption without the necessity of its being shipped, and thereby coming under the cognizance of the Custom-house, is constantly increasing in a much greater degree than that of sea-borne coal. Lancashire, the West Riding of Yorkshire, Nottingham, Derby, Leicester, Birmingham, Wolverhampton, Coventry, and the Potteries in Staffordshire, are all supplied with this necessary element of manufactures at their own doors, for which reason it is quite impossible to ascertain the amount of fuel there consumed. It is certain, however, that every increase in the amount of the manufactures produced in those districts must be taken as an evidence of the increased production of coals. The establishment of canals, and, more recently, of railroads has, besides, had the effect of bringing many

Statement of the Quantity of Coals shipped Coastwise from Ports of Great Britain to other Ports of Great Britain, to Ireland, to the British Colonies, and to Foreign Countries, in each Year from 1819 *to* 1849.

Years.	To Ports in Great Britain.	To Ireland.	To British Colonies.	To Foreign Countries.	To all Parts.
	Tons.	Tons.	Tons.	Tons.	Tons.
1819	3,459,508	669,660	71,497	164,375	4,365,040
1820	3,947,908	606,400	90,447	158,672	4,803,427
1821	3,731,908	644,787	90,423	170,941	4,638,059
1822	3,810,239	694,024	111,822	172,754	4,788,839
1823	4,372,839	693,413	89,713	163,662	5,319,627
1824	4,308,571	691,429	99,575	179,617	5,279,192
1825	4,384,433	695,832	114,264	197,234	5,391,763
1826	4,730,307	779,584	123,437	223,219	5,856,547
1827	4,440,318	650,728	123,109	244,222	5,458,377
1828	4,507,935	740,071	128,092	227,709	5,603,807
1829	5,014,132	840,246	128,893	240,854	6,224,125
1830	..	..	145,204	357,288	*
1831	..	..	152,278	356,419	
1832	..	..	173,508	414,938	
1833	5,859,179	†	192,082	442,366	6,493,627
1834	5,822,561		189,838	425,417	6,437,816
1835	6,117,993	..	189,722	546,338	6,854,053

Years.	Shipped Coastwise to Ports in Great Britain and Ireland.	EXPORTED.		
		To British Colonies.	To Foreign Countries.	To all Parts.
	Tons.	Tons.	Tons.	Tons.
1836	6,472,404	197,724	719,144	7,389,272
1837	7,090,691	247,125	866,485	8,204,301
1838	7,190,433	260,984	1,052,725	8,504,142
1839	7,223,013	254,331	1,195,086	8,672,430
1840	7,475,877	299,631	1,306,682	9,082,190
1841	7,649,899	351,097	1,497,197	9,498,193
1842	7,649,469	352,054	1,647,450	9,648,973
1843	7,447,084	318,914	1,547,297	9,313,295
1844	7,377,862	324,425	1,429,746	9,132,033
1845	8,723,468	409,710	2,121,572	11,254,750
1846	8,305,442	415,919	2,115,189	10,836,550
1847	8,874,599	382,401	2,100,760	11,357,760
1848	9,074,079	421,110	2,364,190	11,859,379
1849	8,552,706	417,080	2,410,959	11,380,745

places within the reach of inland collieries, which were formerly, in this respect, dependent altogether upon supplies brought by sea. So long ago as 1816, it was a matter of complaint on the part of the coal-owners of Northumberland and Durham, that they were thus subjected to great and increasing competition, and a deputation from that body was then sent throughout the kingdom to inquire into the quantity of coals passing by inland navigation and by railroads in different parts of the country. In a report made by the members of this deputation, it was stated that

* In consequence of the repeal of the coasting duty on coals, the Custom-house has ceased to keep any record of the shipments, and no return of the quantities in these years has been called for by Parliament.

† Including shipments to Ireland.

the quantity thus distributed amounted to 4,078,508 Newcastle chaldrons, or 10,808,046 tons, namely—

In Yorkshire	967,406 chaldrons, or	2,563,626 tons.	
Derbyshire	355,554 „	942,218	„
Nottinghamshire . . .	186,666 „	494,665	„
Leicestershire	66,666 „	176,665	„
Warwickshire	162,962 „	431,849	„
Staffordshire	300,000 „	795,000	„
Quantity that passes towards the Eastern Sea . .		5,404,023	„
An equal quantity believed to pass towards the West and South		5,404,023	„
Quantity carried by canals and railways . . .		10,808,046	„

The quantities here given can have been nothing more than an approximation to the truth. If at all correct at the time they were stated, we may be certain that the tonnage must be far greater, now that the wants of the country are so multiplied through the increase of population, and the still greater increase of manufactures, and that the means of distribution, also, are multiplied.

The great consumption of inland coal, as here assumed, will not appear excessive to those who have inquired into the subject. For smelting one ton of iron it may be assumed that four tons of coals are required;* and as the quantity of iron produced in the country amounts to about 2,000,000 tons in the year, it will follow that 8,000,000 tons of coals are consumed in the single process of producing pig or cast iron. To convert this comparatively raw material into bar iron, and to manufacture the latter into the numerous articles of hardware which are made, must add so materially to the consumption of coals, that we should probably be within the truth in estimating the quantity consumed throughout the kingdom, in all the various branches of the iron trade, at more than 10,000,000 tons per annum. The town of Sheffield alone, as already shown, required in 1835 for manufacturing purposes about 515,000 tons.

There is, perhaps, no article of daily use, scarcely even excepting food, which it is more important to the population of the United Kingdom to obtain at a moderate price than coal, the cost of which enters more or less into the price of almost every article of consumption. There can be no doubt that any proposal on the part of the government to impose an excise duty upon this necessary of life would meet with the most determined and general opposition, as being oppressive to the poor and injurious in various ways to the prosperity of nearly every branch of the national industry. It is, therefore, hardly conceivable that the people of England, generally so much alive to their personal interests, should

* Mr. David Mushet has stated that "a ton of iron is made at some furnaces under three tons of coals, and at others eight or nine tons are required for the same purpose." Owing to the recent employment in Scotland of heated air for smelting iron ore, it is said that one ton of iron is produced by the heat given out by two tons eight cwt. of coals.

have submitted, as they did without a murmur, for three-quarters of a century, to the imposition of a virtual tax upon their fuel, far greater in degree than it is likely that any minister would ever be tempted, even under the heaviest financial difficulties, to propose. The tax to which allusion is here made, was not less a tax because it assumed the guise of a trade regulation; it was even more injurious, by reason of the uncertainty of its rate, than any fixed impost could have been. This regulation probably existed so long, because of the ignorance of the public concerning its operation, which ignorance would not have attended upon the imposition of a direct tax. The following brief description of the regulation in question, which ceased only in the year 1845, will prove interesting to the reader.

The "limitation of the vend" existed, with some partial interruptions, from the year 1771. This arrangement was no less than a systematic combination among the owners of collieries having their outlets by the Tyne, the Wear, and the Tees, to raise the price of coal to consumers by a self-imposed restriction as to the quantity supplied. A committee appointed from among the owners held its meetings regularly in the town of Newcastle, where a very costly establishment of clerks and agents was maintained. By this committee, not only was the price fixed at which coals of various qualities might be sold, when sea borne, for consumption within the kingdom, but the quantity was assigned which, during the space of the fortnight following each order or "issue," the individual collieries might ship. The manner in which this combination was conducted, and the effect which it could not but have upon the interests of the consumers, will best be understood by describing the course pursued upon the opening of a new colliery. The first thing to be determined in that case was the rank or "basis" to be assigned to the colliery. For this purpose, one referee was appointed by the owners of the colliery, and another by the coal-trade committee, who, taking into view the extent of the royalty or coal-field secured, the size of the pits, the number and power of steam-engines erected, the number of cottages built for workmen, and the general scale of the establishment, fixed therefrom the proportionate quantity the colliery would be permitted to furnish towards the general supply, which the directing committee from time to time authorized to be issued. The point to be attained by the owners of the colliery, was to secure for their establishment the largest basis possible; and with this view it was common for them to secure a royalty extending over from five to ten times the surface which it was intended to work, thus burthening themselves with the payment of possibly 5,000*l* per annum, or more, of "dead rent" to the owner of the soil, who, of course, exacted such payment in return for his concession, although his tenants might have no intention of using it. Instead of sinking one or two pits, which would afford ample facility for working the quantity which the mine was destined to yield, a third, and

possibly, a fourth pit were sunk, at an enormous expense, and without the smallest intention of their being used. A like wasteful expenditure was made for the erection of useless steam power, and to complete and give an appearance of consistency to the arrangements, instead of building 200 cottages for the workmen, double that number were provided. In this manner a capital of 160,000*l.* to 200,000*l.* might be invested for setting in motion a colliery allowed to raise and sell only such a quantity of coal as might be produced by means of an outlay of one-fourth or one-fifth of that amount. By this wasteful course, the end of the colliery owners was attained; they got their basis fixed—if a large concern, as is here supposed—say at 50,000, and this basis probably secured for them a sale of 25,000 chaldrons during the year, instead of 100,000 chaldrons, which their extended arrangements would have enabled them to raise. The Newcastle committee met once a fortnight, or twenty-six times in the year, and, according to the price in the London market, determined the quantity that might be issued during the following fortnight. If the London price was what is considered high, the issue was increased, and if low diminished. If the "issue" were twenty on the 1000, the colliery here described would have been allowed to sell (20 × 50) 1000 chaldrons during the ensuing fortnight. The pit and establishment might be equal to the supply of 3000 or 4000 chaldrons; orders might be on the books to that extent or more; ships might be waiting to receive the largest quantity, but under "the regulation of the vend," not one bushel beyond the 1000 chaldrons could be shipped until a new issue should be made. By this system the price was kept up; and as regards the colliery owners, they thought it more for their advantage to sell 25,000 chaldrons at 30*s.* per chaldron, than to sell 100,000 chaldrons at the price which a free competition would have brought. If, under this system of restriction, any undue profit was obtained, nothing can be more certain than that competition for a portion of this undue profit would cause the opening of new collieries until the advantage should be neutralized; and this result of the system at length became apparent. Every new colliery admitted into the "vend" took its share in the "issues," and to some extent limited the sales of all the rest. The disadvantage during all this time to the public at large is incontestable. The great staple manufactures of the country, being located in inland coal districts, happily did not suffer from this combination; but in other innumerable processes which require the aid of heat, and which are carried on in cities and places where coal is not found, the addition to the cost of fuel thus occasioned placed the manufacturers at a great disadvantage, while the other inhabitants of those cities, and especially the poor, were very greatly injured by it. The loss to the community at large, through the unprofitable investment of unnecessary capital, no one can dispute.

There was another consequence resulting from this limitation of the

home coal trade which it is necessary to state, as it was productive of great national evil.

The owners of collieries being restricted in their fortnightly issues to quantities which their establishments enabled them to raise in three or four days, were naturally desirous of finding for their men during the remainder of the time some employment which should lessen the expense of maintaining them in idleness, and spread over a larger quantity of product the fixed expenses of their establishments and their *dead rents*. To this end coals were raised which must find a sale in foreign countries; and it practically resulted that the same quality of coals which, if shipped to London, were charged at 30*s*. 6*d*. per Newcastle chaldron, were sold to foreigners at 18*s*. for that quantity, giving a preference to the foreign buyer of 40 per cent. in the cost of English coal. By this means the finest kinds of coal used in London, at a cost to the consumer of about 30*s*. per ton, might be had in the distant market of St. Petersburg for 15*s*. to 16*s*., or little more than half the London price. Nor was this the worst effect of the system. In working a colliery, a great proportion of small coal is raised. The cost to the home consumer, under the system of limitation, being exaggerated, and the freight and charges being equally great upon this article as upon round coal, very little small coal would find a market within the kingdom, except on the spot where it was raised; and as the expense of raising it must be incurred, the coal-owners were forced to seek elsewhere for a market at any price beyond the mere cost of putting it on board ship. By this means, "nut-coal," which consists of small pieces, free from dust, which have passed through a screen, the bars of which are five-eighths of an inch apart, were sold for shipment to foreign countries at the low price of 3*s*. per ton. The intrinsic quality of this coal is quite as good as that of the round coal from the same pits; it is equally suitable for generating steam, and for general manufacturing purposes; and thus the manufacturers of Denmark, Germany, Russia, &c., obtained the fuel they required, and without which they could not carry on their operations, at a price not only below that paid by English manufacturers, but for much less than the cost at which it was raised. The coal-owner might, it is true, have sold this small coal at home at a better price than he obtained from his foreign customer, but every ton so sold would have taken the place of an equal quantity of large coal, upon which his profit was made, and by such home sale he would by no means have lessened his sacrifice, but the reverse.

In this way during three-quarters of a century every person using sea-borne coal in Great Britain was exorbitantly taxed for the benefit of rival manufacturers in other countries.

It has been stated, that the coal-owners of Durham and Northumberland have it seriously in contemplation at this time (Nov. 1850) to

recur to the system here described, with perhaps some modifications. It seems hardly probable, however, that they should do so, seeing that they would have to meet all the difficulties which forced them in 1845 to break up their combination, and that the facilities for competition on the part of owners of inland coal-fields are far greater now than they were in 1845, while through the extension of railways, these facilities are being continually augmented.

Among the mineral productions of England, salt has long been an article of considerable importance. The mines from which English salt is produced in the fossil or solid form, are situated in Cheshire, near the town of Northwich. Brine springs are also found in the same neighbourhood, as well as in other counties, and chiefly in Staffordshire and Worcestershire. Nearly the whole of the fossil or rock salt that is raised is exported, some to Ireland, but the principal part to the north of Europe. A small quantity is used to strengthen the brine yielded by salt-springs, from which the salt used for domestic purposes, and also a large part of what is exported, is produced by evaporation.

The chief part of the Cheshire salt, both fossil and manufactured, is sent down the river Weaver to Liverpool, for distribution and exportation; only a small proportion being conveyed to other places by canal and land carriage. The white salt made from the Staffordshire springs is chiefly exported from Hull, while that from Worcestershire finds an outlet at Gloucester. The following table exhibits the quantities of white and rock salt sent down the river Weaver in each year from 1803 to 1844:—

Years.	Rock Salt.	White Salt.	Total.	Years.	Rock Salt.	White Salt.	Total.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1803	57,699	122,537	180,236	1824	121,459	162,365	283,824
1804	57,087	126,775	183,862	1825	89,551	252,876	342,427
1805	60,830	180,498	241,328	1826	51,522	232,026	283,528
1806	52,620	157,124	209,744	1827	45,829	271,535	317,364
1807	54,187	180,165	234,352	1828	66,883	289,225	356,108
1808	47,916	123,693	171,609	1829	82,830	321,462	404,292
1809	63,520	192,590	256,110	1830	97,077	336,245	433,322
1810	50,564	205,800	256,364	1831	90,742	301,679	392,421
1811	49,277	120,487	169,764	1832	94,400	345,896	440,296
1812	54,140	159,364	213,504	1833	95,706	383,669	479,375
1813	47,230	149,074	196,304	1834	82,179	376,220	458,399
1814	101,075	233,249	334,324	1835	61,505	298,543	360,048
1815	88,741	236,373	325,114	1836	83,637	295,816	379,453
1816	74,286	121,728	196,014	1837	82,998	334,239	417,237
1817	59,446	148,709	208,155	1838	98,419	390,840	489,259
1818	93,582	214,931	308,513	1839	108,380	378,855	487,235
1819	85,935	179,939	265,874	1840	121,458	431,706	553,164
1820	82,956	188,808	271,764	1841	109,355	360,833	470,188
1821	91,867	147,822	239,689	1842	104,299	345,571	449,870
1822	110,785	151,431	262,216	1843	71,632	476,014	547,646
1823	125,658	170,401	296,059	1844	91,693	461,419	553,112

If to the quantity here stated 100,000 tons of white salt are added annually for the produce of springs in other counties, and for that part of

the Cheshire salt which is not sent to Liverpool, it is probable that the total produce of this mineral in England will be very nearly ascertained.

Up to the year 1823, salt was subject to an Excise duty of fifteen shillings per bushel, which was reduced in that year to two shillings; and since the 5th of January, 1825, the duty has been wholly repealed. The following table shows the total quantity of salt made, and the proportion taken for consumption in each year from 1801 to 1817, the latest period to which the account was called for by Parliament previous to the repeal of the duty; subsequent to that event there are of course no means for obtaining such information. We may, however, make an approximation towards the truth for the eighteen years from 1827 to 1844 by means of the preceding table, and of the statements which will be found below of the quantities exported during those years, the difference between the quantities produced and exported representing the internal consumption of the country.

Years.	Bushels made.	Bushels taken for Consumption.	Years.	Bushels made.	Bushels taken for Consumption.
1801	9,469,491	1,822,683	1810	11,929,728	1,999,486
1802	9,582,713	1,863,402	1811	10,387,932	2,038,252
1803	8,741,808	1,996,261	1812	9,468,689	2,047,392
1804	8,933,324	2,065,776	1813	11,067,603	2,037,931
1805	10,210,004	1,951,602	1814	12,182,497	2,045,892
1806	10,891,085	1,910,453	1815	15,084,644	2,136,912
1807	10,872,672	1,912,462	1816	11,559,950	2,003,243
1808	8,903,162	1,907,273	1817	9,357,482	1,939,674
1809	9,849,499	1,965,161			

Bushels of Rock and White Salt exported in each year from 1827 *to* 1849.

Years.	Bushels.	Years.	Bushels.	Years.	Bushels.
1827	7,475,025	1835	8,317,029	1843	12,946,453
1828	8,993,124	1836	9,622,427	1844	13,476,884
1829	10,574,951	1837	9,961,884	1845	14,319,482
1830	10,499,778	1838	11,398,662	1846	12,876,381
1831	9,932,214	1839	11,837,594	1847	16,271,927
1832	10,561,861	1840	12,847,663	1848	18,959,322
1833	11,670,434	1841	10,637,953	1849	18,604,907
1834	11,093,674	1842	10,776,129		

Of the quantity exported in the year 1848,—

Russia took	1,880,743	bushels
Denmark	522,400	„
Prussia	2,812,700	„
Holland	1,183,648	„
Belgium	1,347,714	„
Sweden and Norway	261,919	„
Germany	269,604	„
British North American Colonies	2,015,162	„
United States of America	7,055,424	„
Western Coast of Africa	497,598	„
British India, &c.	737,307	„
New South Wales	210,969	„
South America and West Indies	115,040	„
Guernsey, Jersey, &c.	49,094	„

Assuming the correctness of the estimate first given respecting the production of salt, and deducting from the quantities assigned to each

of the years from 1827 to 1844, the quantities exported in those years, it will be found that the quantity retained for use within the kingdom was in each of those years as follows :—

Years.	Bushels.	Years.	Bushels.	Years.	Bushels.
1827	9,219,535	1833	11,504,566	1839	11,651,816
1828	9,251,196	1834	11,242,286	1840	13,278,927
1829	9,596,729	1835	10,084,891	1841	12,169,607
1830	10,833,102	1836	9,555,733	1842	11,218,681
1831	9,764,626	1837	10,727,616	1843	12,959,407
1832	11,049,979	1838	12,171,698	1844	12,647,616

The average of these quantities is 11,051,555 bushels, while the average consumption of the eight years from 1801 to 1808, as given by the Excise table, was 1,928,739 bushels, showing thus an increase between those periods of more than 470 per cent.

During the continuance of the high duty, the proprietors of salt-works charged, in addition to the duty, more than double the price which they now demand, as an equivalent for the greater capital embarked and the increased risk attending the business.

Since the repeal of the duty, salt has been much more used than formerly by the poor, in many parts of the country, for salting provisions; and it has, besides, been applied to many purposes in the arts, as a substitute for kelp, barilla, and potash, in the manufacture of glass and soap, and also in the manufacture of bleaching salts; purposes to which it would not have been applied but for the great reduction in its price.

SECTION III.—INTERCHANGE.

CHAPTER I.

INTERNAL COMMUNICATION.

Great facility afforded for Transport in Great Britain—Advantages thence resulting—Jealousy on this account of Foreign Countries, and Commercial Restrictions for which it is made the pretext—Consequent injury to those Countries—Improvements in Locomotion projected in France.

THERE is not any circumstance connected with the internal condition of England which more strongly excites the admiration and the envy of foreigners than the degree of perfection to which we have brought our means of internal communication. The skill and labour that have been applied to this object are among the chief exciting causes of that high degree of activity which characterises and pervades the productive classes in every part of the country. The perfection to which we have carried the means of transporting persons and property from one part of the kingdom to another has indeed become one of our national characteristics.

Placed, by its insular condition, in circumstances which render efforts of that kind less indispensable than would have been necessary if our country had formed part of the interior of a continent, we have done more than any other nation of Europe, for facilitating communications from and to every nook and corner of the land. If we examine the map of England, we shall find that, as regards one mode of public communication, there is not any spot south of the county of Durham at a greater distance than fifteen miles from water conveyance. In the largest part of the area thus described, that distance is not greater at any spot than ten miles, while in that portion which is the principal seat of our manufactures, canals have been constructed, or rivers rendered navigable, so as to provide means for cheap and easy communication from the very heart of each town to every other part of the kingdom, and to our chief commercial ports. By this means, the raw materials of manufactures are delivered, unencumbered with heavy charges, at

the doors of our factories, and finished goods are carried away from them with the utmost facility and economy, for distribution to the different markets of the civilized world.

The advantages to a commercial people of roads upon which they can pass at all times with comfort and celerity between distant markets can hardly be appreciated too highly. By this means the peculiar wants and capabilities of every part of the community come to be understood, and are supplied on the one hand, or made available on the other, to a degree which could never be attained by correspondence with local agents, whose information would, in general, be limited to the circumstances of the spots upon which they reside. The extent of our facilities in this respect has been viewed by our continental neighbours as one great cause of our commercial superiority, and has been brought forward by their public economists as some justification of that degree of commercial jealousy which leads them to maintain a system of restrictions, sufficiently inconvenient to us, but far more hurtful to the countries by which it is enforced. This dread of our superiority in the means of internal communication, our *viabilité immense*, has been brought forward by the French Minister of Commerce, and stated in a public document as affording a sufficient reason why our coal and iron should not be suffered freely to compete with the produce of the mines and forges of France, not considering that the possession of abundant and cheap supplies of these minerals would effect more towards the rapid removal of all existing disparity in this respect between the two countries, than our neighbours could reasonably hope to accomplish at the end of a long series of years of restrictions and prohibitions. The proper understanding of this question is a matter of so much importance, that it is desirable to offer a few facts drawn from the circumstances of France, in illustration and support of the opinion just expressed.

In the whole range of the science of public economy there is, perhaps, no principle more easily or more clearly demonstrable than the advantage of possessing, at the cheapest possible rates, the raw materials of manufacture, and it may with equal facility be shown, that of all those materials, there is not one—unless, indeed, food may be so considered, which is of more universal importance than iron. In the first Report of Messrs. Villiers and Bowring on the Commercial Relations between France and Great Britain, the following curious calculation is given, in order to show how severe a loss is entailed by the high price of iron upon one class of persons in France—the cultivators of the soil:—"The lands cultivated in France are supposed to amount to 22,818,000 hectares, equal to 57,045,000 acres English, and it is calculated that a team of oxen would cultivate 15 hectares; hence the quantity of ploughs employed in France is estimated at about 1,500,000. M. de la Rochefoucault represents the annual use and waste of iron at 40 kilogrammes

per team, but it has been more frequently estimated at 50 kilogrammes, making for the whole consumption 75,000,000 kilogrammes of iron, which, at 90 francs per 100 kilogrammes, consumes 67,500,000 francs, equal to 2,700,000*l.* sterling. Now, though this estimate is too high for an average calculation, it is undeniable that the iron could be imported from foreign countries at half the price, and the loss to agriculture alone must be taken at above one million sterling per annum." This calculation is probably excessive, since it is well known that the primitive mode of cultivation adopted through a great part of France does not call for the use of the plough, nor admit of the employment of teams of oxen or horses; but this circumstance does not materially affect the argument, since the proportionate loss is as great upon farms where the better modes of culture prevail, and it is further probable that the excessive price of iron may act in preventing the adoption of those better modes of culture in other situations. In whatever way the case may be considered, it will be seen that the high price of iron acts directly to enhance the cost of food, and thus is detrimental to the whole community.

In another way, more immediately connected with this branch of our subject, the high price of this article of prime necessity acts detrimentally to the community. It was given in evidence before the Committee of the House of Commons, which sat in 1833, to inquire as to the tolls to be placed on steam carriages, that every coach which travelled between London and Birmingham distributed about eleven pounds weight of wrought iron along the line of road between those two places. This line of road being more than ordinarily level, and being kept in a state of the most perfect repair at all times, may be supposed to cause as little wear to the wheels of carriages and the shoes of horses as can well be experienced upon a common road, and far less than would be experienced on the roads of France. If it were possible to estimate the number of miles travelled over by the various wheel carriages used in that country, where almost all locomotion is carried forward upon the roads, the amount of loss arising from this source must needs be found enormous. If the wear were no greater than upon the hard and level road between London and Birmingham, the loss of iron upon every journey performed between Marseilles and Paris would amount to twenty-five kilogrammes, one-half of the cost of which might be saved by freely admitting the iron of other countries.

The loss entailed upon the inhabitants of France, through the badness and insufficiency of the roads in many parts, may be exemplified by the fact, which is stated on the most respectable authority, that a few years ago, in a part of the department of Vaucluse, the price of wheat was 25 per cent. greater than the price at the nearest market, which is only twenty-two English miles distant. In this case the means of trans-

port were so imperfect, that goods of all kinds were conveyed upon the backs of horses or mules.

The French government has of late years been engaged in the prosecution of inquiries with a view to the establishing of various lines of railroads, between different places of commercial importance within the kingdom, and under the sanction of the Legislative Chambers, several principal lines or trunks, with various branches, have been constructed, and others undertaken.

Besides the great enhancement of its cost which would be occasioned by the greater use of French iron, it is quite impossible that so large a quantity of the material as would be required for carrying out these projects should be supplied without having recourse to foreign supply. The employment of French iron would be also unadvisable because of its quality, which is not so well adapted for making rails as English iron, and would therefore occasion a greater constant expense for keeping the lines in repair.

CHAPTER II.

TURNPIKE ROADS.

Length of Turnpike-roads in Great Britain in 1818 and 1829—Length in each County in 1829—Improvement of Roads in Scotland—In Ireland—Effect upon Society—Former Condition of Roads in England—Improvements in public Carriages and greater Speed in Travelling—Traffic upon Roads and Canals as given in evidence before Parliament—Amount of Travelling by Stage-coaches in Great Britain—Proportion of that Amount connected with London—Number of Mail-coaches in England, Scotland, and Ireland.

THE chief improvement made of late years in England in regard to turnpike-roads, has consisted in reconstructing them upon more scientific principles than were previously employed, an advantage which is mainly owing to the exertions of the late Mr. M'Adam, whose plans have been adopted generally throughout the kingdom, as well as in several foreign countries. England had long been provided with roads in every quarter; yet we find, from Parliamentary returns, that, between 1818 and 1829, the length of turnpike-roads in England and Wales was increased by more than one thousand miles. In the Report of the Select Committee on the Turnpike Roads and Highways of England and Wales, which sat in 1820, a summary of the extent of these roads is given as it existed in 1818. That summary was collected from 16,955 returns made by the surveyors of highways in 9822 parishes, 5217 townships, and 1916 hamlets or other places, leaving a deficiency of returns from only 120 places.

At the time to which those returns have reference, there existed—

	Miles.
In England and Wales, paved streets and turnpike roads to the extent of	19,725
Other public highways	95,104
Total	114,829

If we suppose that all the turnpike-roads then existing were of the statutable breadth of sixty feet, they would have covered 212 square miles, or about 136,000 acres. If all the other public highways were on the average thirty feet wide, they would have covered 540 square miles, or 346,000 acres, making altogether, in 1818, 482,000 acres.

We further find, from the Report of the Lords' Committee upon Turnpike Trusts, that in the year 1829 the extent of turnpike-roads was—

	Miles.		
In England	18,244		
Wales	2,631		
		20,875	
Scotland		3,666	
Total in Great Britain			24,541 Miles.

Their distribution through the respective counties is shown in the following—

Summary of Returns made by the Clerks of the Peace and the Clerks of the Roads, of the extent of Turnpike Roads in the different Counties of Great Britain, corrected to the Year 1829.

ENGLAND.	Miles.
Bedfordshire	238
Berkshire	319
Buckinghamshire	165
Cambridgeshire	278
Cheshire	349
Cornwall	318
Cumberland	215
Derbyshire	574
Devonshire	782
Dorsetshire	347
Durham	359
Essex	249
Gloucestershire	840
Hampshire	810
Herefordshire	553
Hertfordshire	170
Huntingdonshire	146
Kent	586
Lancashire	631
Leicestershire	445
Lincolnshire	538
Middlesex	158
Monmouthshire	315
Norfolk	271
Northamptonshire	358
Northumberland	479
Nottinghamshire	302
Oxfordshire	342
Rutlandshire	18
Shropshire	988
Somersetshire	746
Staffordshire	630
Suffolk	279
Surrey	281
Sussex	623
Warwickshire	477
Westmoreland	284
Wiltshire	768
Worcestershire	565
Yorkshire	1,448
Total	18,244

WALES.	Miles.
Anglesea	25
Brecknockshire	169
Cardiganshire	250
Carmarthenshire	319
Carnarvonshire	129
Denbighshire	165
Flintshire	85
Glamorganshire	355
Merionethshire	261
Montgomeryshire	450
Pembrokeshire	173
Radnorshire	250
Total	2,631

SCOTLAND.	
Aberdeenshire	232
Ayrshire	486
Banffshire	123
Berwickshire	126
Clackmannanshire	71
Dumbartonshire	57
Dumfriesshire	251
Edinburghshire	273
Elginshire	26
Forfarshire	131
Haddingtonshire	120
Kincardineshire	96
Kirkcudbright	216
Lanarkshire	374
Linlithgowshire	117
Nairnshire	9
Peeblesshire	113
Perthshire	225
Renfrewshire	195
Roxburghshire	193
Selkirkshire	23
Stirlingshire	158
Wigtonshire	51
Total	3,666

If we allow 150 miles for the deficient returns of 1818, and which is somewhat above the average given by the 16,955 returns actually made, we shall find an increase of exactly 1000 miles in England and Wales; but this increase is of little importance if viewed comparatively with the improvements introduced into their construction and management.

As regards the highways of Scotland, we have more precise information given in the Reports of the Board of Works, constituted in 1803, for constructing roads and bridges in the uncultivated districts of that country. Since its formation, that Board has caused the construction of 1186 miles of roads, and more than 1000 bridges.

By this means, according to the opinion of the late Mr. Telford, whose opportunities for forming a correct judgment upon the subject few persons will question, we have advanced civilization, in the districts principally affected, by at least one hundred years. The manner in which this advancement has shown itself in one part of the country was thus described in the evidence given by Mr. Loch, before the Select Committee on Public Works in Ireland, of which committee he was a member, and which sat in the Session of 1835:—

"When I first became acquainted with the Highlands, the great proportion of the people, in place of being immediate tenants of the landlord, held of the different tacksmen. Since then almost all persons occupying land, and I do not confine my observations to Sutherland alone, though principally to it, have become immediate tenants to the landlord. They were extremely irregular in their habits, being poachers on the river, and smugglers, and since then, in Sutherland, they have given up both, and have become most industrious workmen in every class of agricultural labour. It was necessary, at the period I mention, to get ploughmen from Elgin, and that side of the Moray Firth, and there was not a person who could build a stone wall, the ordinary mode of enclosing land in that country. But it is so much the reverse at the present moment, that almost every ploughman in the county is a native, and they are now the best builders of stone walls in the North, in consequence of which they are employed in all the adjacent counties. A great improvement has taken place also, arising from the greater extension of the English language. When the children on the coast-side formerly came out of school, though they were taught to read English in the school, they spoke nothing but the Gaelic language; now when they play after school hours on the coast-side, they all speak English. Nothing has tended so much to this as the institution of Gaelic schools, which were founded with the object of preserving that language; but the fact is, the moment persons have acquired the facility of reading Gaelic, they find it of no use, and immediately leave it, and teach themselves English."

The moral improvement here pointed out is ascribed by Mr. Loch to the formation of roads by the Government since 1803, and a like effect has been experienced in at least an equal degree in Ireland. Mr. Griffith, speaking upon the subject in 1822, thus expresses himself:—

"The fertile plains of Limerick, Cork, and Kerry, are separated from each other by a deserted country, hitherto nearly an impassable barrier. This large district comprehends upwards of 900 square miles; in many places it is very populous. As might be expected, under such circumstances, the people are turbulent, and their houses being inaccessible for want of roads, it is not surprising that during the disturbances of 1821 and 1822 this district was the asylum for whiteboys, smugglers, and robbers, and that stolen cattle were drawn into it as to a safe and impenetrable retreat. Notwithstanding its present desolate state," adds Mr. Griffith, "this country contains within itself the seeds of future improvement and industry."

In reporting upon the state of the same district in 1829, only seven years after the above unfavourable description was given, but during which interval several roads had been opened through it, the same intelligent gentleman states as follows:—

"A very considerable improvement has already taken place in the vicinity of the roads, both in the industry of the inhabitants, and the appearance of the country; upwards of sixty new lime-kilns have been built; carts, ploughs, harrows, and improved implements, have become common; new houses of a better class have been built, new enclosures made, and the country has become perfectly tranquil, and exhibits a scene of industry and exertion at once pleasing and remarkable. A large portion of the money received for labour has been husbanded with care, laid out in building substantial houses, and in the purchase of stock and agricultural implements, and numerous examples might be shown of poor labourers possessing neither money, houses, nor land, when first employed, who in the past year have been enabled to take farms, build houses, and stock their lands."

In a report made in the year 1824, by the late Mr. Nimmo, a gentleman to whom Ireland is much indebted for the suggestion and execution of many plans of enlightened improvement, it is stated that in a part of the county of Kerry, "a few years ago there was hardly a plough, car, or carriage of any kind; butter, the only produce, was carried to Cork on horseback; there was not one decent public-house, and only one house slated and plastered in the village: the nearest post-office thirty miles distant. Since the new road was made, there were built in three years upwards of twenty respectable two-story houses, a shop with cloth, hardware, and groceries; a comfortable inn, a post-office, bridewell, new chapel, a quay covered with limestone for manure,

a salt-work, two stores for oats, and a considerable traffic in linen and yarn." This gratifying statement describes only the first beginning of improvement. When seven more years had passed, the population amounted to more than 1100; in 1841 they exceeded 1500 souls. The twenty houses spoken of by Mr. Nimmo were increased to more than 250, forming the flourishing town of Cahirciveen, which is the centre of a considerable import and export trade. These advantages, which are still only beginning to develop themselves, have originated in the making of about seventy miles of new road, on a level line.

It is stated in the Reports of the Commissioners of Public Works in Ireland, a Board established by Act of Parliament in 1831, that "the benefits which the country has derived from the construction of roads carried by the aid of government contributions through extensive poor uncultivated districts, which were previously without means of communication, continue to manifest themselves in the most satisfactory manner.

"The very great benefit which the country has derived from the formation of these roads has been repeatedly represented; nothing, however, short of witnessing the effects produced can give an adequate impression of their value.

"These roads have been the means of fertilising the deserts, and of depriving the lawless disturbers of the public peace of their place of refuge, affording them at the same time resources for an active, honest, industry, of which, we must do them the justice to observe, they have not shown any indisposition to avail themselves.

"In traversing a country covered with farms, and in a high state of cultivation, showing every sign of a good soil, and of amply-remunerating produce, it becomes difficult to credit the fact that ten or twelve years since the whole was a barren waste, the asylum of a miserable and lawless peasantry, who were calculated to be a burthen rather than a benefit to the nation; and that this improvement may entirely be attributed to the expenditure of a few thousand pounds in carrying a good road of communication through the district."

Among the subjects to which the Commissioners appointed in 1835 for inquiring into the condition of the poorer classes in Ireland extended their investigations, the state of the public roads was included. From the evidence given, the roads between market towns are in good repair, and so improved, in comparison to their former condition, that a horse is now able to carry to market twice or thrice the load that he used to draw twenty years ago. This improvement is most apparent "in the neighbourhood of resident proprietors' seats, and through their estates, as they take care, by means of their local influence, to have the county money laid out on the roads upon and near their own property."

The almost magical effect ascribed to the opening of the new roads in Ireland was, at a period not very distant, experienced in England,

even within what is now only a four hours' journey from London. An inhabitant of Horsham, in Sussex, lately living, remembers, when a boy, to have heard from a person whose father carried on the business of a butcher in that town, that in his time the only means of reaching the Metropolis was either by going on foot, or riding on horseback, the latter of which undertakings was not practicable at all periods of the year, nor in every state of the weather—that the roads were not at any time in such a condition as to admit of sheep or cattle being driven upon them to the London markets, and that for this reason the farmers were prevented sending thither the produce of their land, the immediate neighbourhood being, in fact, their only market. Under these circumstances, a quarter of a fat ox was commonly sold for about 15*s.*, and the price of mutton throughout the year was only five farthings the pound. Horsham is 36 miles from London, and the journey between the two places by the turnpike-road now occupies less than four hours; before the opening for traffic of the Brighton Railway, more than 30 stage-coaches travelling at this rate passed through Horsham every day, on their way from and to the Metropolis, in addition to numerous private carriages and post-chaises; the traffic of goods—principally coal and agricultural produce—carried on in the district of which Horsham is the centre, exceeded 40,000 tons a year, besides which, the road was constantly covered with droves of cattle and flocks of sheep.

The imperfection thus described as formerly existing in Sussex, was by no means confined to that county. In Arthur Young's "Tour in the North of England," published in 1770, he gives the following description of the turnpike-road between Preston and Wigan, a spot which is now become a centre for railway operations:—"I know not, in the whole range of language, terms sufficiently expressive to describe this infernal road. To look over a map, and perceive that it is a principal one, not only to some towns, but even whole counties, one would naturally conclude it to be at least decent; but let me most seriously caution all travellers who may accidentally purpose to travel this terrible county, to avoid it as they would the devil, for a thousand to one but they break their necks or their limbs by overthrows or breakings-down. They will here meet with ruts, which I actually measured, four feet deep, and floating with mud, only from a wet summer,—what, therefore, must it be after a winter? The only mending it receives in places is the tumbling in some loose stones, which serve no other purpose but jolting a carriage in the most intolerable manner. These are not merely opinions, but facts, for I actually passed three carts broken down, in these eighteen miles of execrable memory."

The benefits which resulted from the improvement of roads in this and other parts of the country, were not confined to the particular spots where those improvements have been made, but were shared by the

country generally. This fact was formerly so ill understood, that when it was in contemplation to extend turnpike-roads from the Metropolis to more distant points than those to which they had before been carried, the farmers in the metropolitan counties petitioned Parliament against the plan, fearing lest their market being invaded by so many competitors, who would sell their produce more cheaply, they should be ruined. The comparative rent of land in the neighbourhood of London, and indeed of every large town, now that so much more facility of communication has been attained, is a sufficient answer to the apprehensions then expressed. Without thus increasing the means of supply, it is manifestly impossible greatly to increase the population of towns; by restricting their population, the growth of commercial and manufacturing industry would be arrested, the augmentation of the capital of the country would proceed but slowly, if at all, and the nation would continue stationary, or its progress would at best be hardly perceptible. In such a state of things it would be vain to expect that any advances should be made towards the attainment of rational freedom, or the improvement of our social institutions; and if, notwithstanding these circumstances, population were to increase, the mass of the people must continually become poorer, they would be more and more driven to the habitual use of the lowest descriptions of food, and, instead of the gratifying spectacle now exhibited, of a people steadily advancing in the attainment of the arts and the blessings of civilization, we should gradually sink into a state of barbarism, and might in the end be degraded to the lowest scale of intelligence compatible with human nature.

The improvements made in the mode of constructing roads, and the state of perfect repair in which they are maintained, led to corresponding improvements in the form and construction of our public carriages, and in everything connected with their management and performance. Very considerable improvements in these respects had been made in the second half of the last century. In 1742, the one stage-coach that travelled between London and Oxford began the journey at seven in the morning, and did not reach its destination until the evening of the following day, resting at High Wycombe during the intervening night. The same journey has since been regularly performed by coaches in six hours, and the express trains of the Great Western railway now make the journey in less than an hour and a half. It will serve to show the degree of improvement that had been attained at the close of the last century, to state, that the author well remembers, in the summer of 1798, leaving the town of Gosport at one o'clock of the morning in the "Telegraph," then considered a "fast coach," and arriving at the Golden Cross, Charing Cross, at eight in the evening, thus occupying nineteen hours in travelling eighty miles, being at the rate of rather more than four miles an hour. Our countrymen who visit

France complain of the slow pace of the diligence in that country, not remembering that it is equal to that which was ordinarily accomplished in this country less than forty years ago. On all the principal roads communicating with London, the rate of travelling by the turnpike-roads is now nearly or quite ten miles an hour, nor is it in celerity alone that improvement has been made. It might have been supposed that, to attain so high a degree of speed, the personal safety of passengers would be further endangered, but the very contrary is the fact, so that, notwithstanding the rapidity with which we are whirled along, the number of accidents is actually lessened, a result produced by the better construction of the carriages, the greater perfection of the harness, the absence of such obstacles as were described by Arthur Young, and, more than all, by the superior character of the drivers, a steady, well-conducted, and sober class of persons having taken the place of men with habits and characters the very reverse.

If previous to the adoption of the improvements here noticed in the construction and maintenance of our turnpike-roads, the above results had been anticipated, the prediction would have been thought wild and chimerical; but, witnessing as we do those results, we are now so far from considering them as the limit of our onward progress, that we reasonably look for a series of further improvements in locomotion, of which railways and steam-carriages may be only among the first steps, and which will do more for us and our descendants than turnpike-roads and railways have done for our immediate predecessors and ourselves in facilitating intercourse between different parts of the kingdom, in opening distant markets, in economising the cost of transport, and in equalising the prices of produce throughout the kingdom, for the general benefit of the community.

It is a difficult thing to obtain accurate estimates of the amount of traffic upon roads or canals. In ordinary cases no one is interested in keeping an account of the number of vehicles or of passengers, or the quantity of goods conveyed upon the roads; and as the property in canals belongs to individuals or to private associations, it is judged prudent to conceal such facts, lest the knowledge of them should encourage rivalry. The only occasions on which information of this kind is collected and made public, are, when the promoters of some new undertaking are desirous of making out a case in favour of their own project, and it must be obvious that statements thus proffered are liable to some exaggeration, and must be received with caution. In the way here mentioned much information has been given in evidence before Committees of the House of Commons, appointed to examine the numerous railway bills brought forward, and in the absence of more extensive and authentic returns, selections from the information thus given may be interesting.

NAME OF RAILWAY.	Passengers along the proposed Line by Coaches, &c.	Number of Cattle.	Number of Sheep.	Number of Swine.	Merchandise by Waggons, &c.	Merchandise by Water.	Agricultural Produce.	Coals by Land.	Coals by Water.
	No.	No.	No.	No.	Tons.	Tons.	Tons.	Tons.	Tons.
Birmingham and Derby Junction	145,749	7,254	27,105	..	14,547	188,006	11,401	..	..
Birmingham and Gloucester	210,125	4,033	8,304	..	29,020	..	..	..	..
Hull and Selby	195,662	..	..	..	..	93,673	..	..	..
Bristol and Exeter	170,208	15,000	85,000	..	33,618	22,025	38,318	..	60,000
Cheltenham and Great Western	246,013	13,104	55,510	..	31,848	..	..	..	..
Sheffield and Rotherham	175,109	..	..	..	36,374	106,223	..	..	..
North Midland	149,812	..	..	..	124,350	..	..	..	..
Midland Counties	255,424	..	..	..	12,948	67,732	..	..	285,000
Manchester and Leeds	207,688	..	..	..	109,486	189,020	..	..	60,452
York and North Midland	185,660	53,000	110,600	..	5,547	95,100	3,950	..	98,000
South-Eastern (London and Dover)	317,252	..	..	..	63,079	53,216	..	..	..
Eastern Counties	1,449,736	50,000	433,300	20,000	274,775	..	..	..	85,917
London and Cambridge	591,344	111,956	533,520	..	72,214	223,600	..	..	..
Manchester and Cheshire	84,369	..	..	..	22,726	183,634	..	..	..
London and Brighton	226,444	..	..	..	43,765	..	18,200	76,500	..
Edinburgh, Leith, and Newhaven	3,877,131	..	..	..	282,326	..	..	..	..
Dundee and Arbroath	200,727	..	..	..	51,899	..	..	..	..
Blackwall { By Coaches	932,731	..	..	..	170,075	163,618	..	..	..
Blackwall { By Steam-boats	1,057,742	..	..	..	..	..	..	..	..
Great North of England (Harworth and York)	75,158	20,000	28,000	..	32,136	..	..	80,000	..
Chester and Crewe	74,568	..	..	26,728	17,378	104,948	..	..	..
Great Western	404,924	..	..	..	85,244	..	..	..	..
Lancaster and Preston	106,957	..	..	..	..	13,011	..	..	..
Sheffield and Manchester	335,444	20,800	30,000	26,000	84,050	..	..	..	..
Glasgow and Ayr	597,470	..	..	..	121,027	..	4,453	22,052	..
Chester and Liverpool	169,684	..	..	..	82,780	52,052	..	..	..

The calculations as to the number of passengers conveyed by stage-coaches upon the different lines of road embraced by the foregoing estimates, were for the most part grounded upon information furnished by the Stamp Office in London, in which department the necessary particulars are registered, upon the issue of the license, without which no person is allowed to convey passengers for hire from one part of this kingdom to another. In order to obtain some approximation to the extent of travelling by such means in England, a careful calculation has

been made upon the whole of the returns so made to the Stamp Office, and the licenses for which coaches were in operation at the end of the year 1834.* The method followed in making the calculation has been to ascertain the performance of each vehicle, supposing that performance to have been equal to the full amount of the permission conveyed by the license, reducing the power so given to a number equal to the number of miles which one passenger might be conveyed in the course of the year;—for example: a coach is licensed to convey 15 passengers daily from London to Birmingham, a distance of 112 miles. In order to ascertain the possible performance of this carriage, during the year, if the number of miles is multiplied by the number of journeys, and that product multiplied again by the number of passengers, we shall obtain, as an element, a number equal to the number of miles along which one person might have been conveyed: viz. $112 \times 365 \times 15 = 613{,}200$. In this case the number of miles travelled is 40,880, along which distance 15 persons might have been carried during the year; but, for the simplification of the calculation, the further calculation is made, which shows that amount of travelling to be equal to the conveyance of one person through the distance of 613,200 miles. Upon making this calculation for the whole number of stage-coaches that possessed licenses at the end of the year 1834, it appears that the means of conveyance thus provided for travelling were equivalent to the conveyance during the year of one person, for the distance of 597,159,420 miles, or more than six times the distance between the earth and the sun. Observation has shown that the degree in which the public avail themselves of the accommodation thus provided is in the proportion of 9 to 15, or 3-5ths of its utmost extent. Following this proportion, the sum of all the travelling by stage-coaches in Great Britain may be represented by 358,295,652 miles; if we exclude from the calculation all very young children, as well as persons who from their great age and bodily infirmities are unable to travel, there will probably remain in England 10,000,000 of persons by whom that amount of travelling might be accomplished; but it is well known that a very large proportion of the population are not placed in circumstances that require them to travel, and if even it were otherwise, that they would not avail themselves of a mode of conveyance so comparatively costly as a stage-coach. We shall probably go to the utmost extent in assuming that not more than 1-5th, or two millions of persons, travel in that manner, and it places in a strong point of view the activity which pervades this country when we thus arrive at the conclusion, that each of those persons must on the average have travelled on land by some public conveyance 180 miles in the course of the year 1834. This calculation was exclusive of

* The progressive opening of railways since 1834 would interfere materially with the correctness of any calculation based upon the Stamp Office returns of later years.

all travelling in post-chaises, in private carriages, and by steam-vessels, the amount of which there are not any means for estimating.

It affords a good measure of the relative importance of the Metropolis to the remainder of the country, that of the above number of 597,159,420, the large proportion of 409,052,644 is the product of stage-coaches which are licensed to run from London to various parts of the kingdom. The licenses, which have formed the groundwork of the calculations, include all public conveyances proceeding between one part of England and another part of England, as well as those conveyances which travel between England and Scotland, but not such as begin and end their journeys in Scotland; and the travelling in Ireland is wholly excluded.

There were in 1837, 54 four-horse, and 49 pair-horse *mail-coaches* in England. The greatest speed attained by any of these was $10\frac{5}{7}$ miles per hour, and the slowest speed of any 6 miles, the average of the whole being $8\frac{7}{8}$ miles per hour. There were besides 30 four-horse mails in Ireland, and 10 in Scotland. The number of stage-coaches, including mails, licensed by the Commissioners of Stamps at the beginning of 1837, was 3026. Of this number about one-half (1507) began or ended their journeys in London.

CHAPTER III.

CANALS.

Beginning of Canal-making in England—Utility of the Duke of Bridgewater's Canals—Length of Navigable Rivers and Canals in England—Inland Navigation in Ireland—Neglect of Natural Facilities in that Country—Improvement of the Shannon—Traffic on Grand and Royal Canals and River Barrow—Ulster Canal—Caledonian Canal—Crinan Canal—Canals begun and finished since 1801—Canals of France—Of America.

THE greatest era of canal-constructing in England was during the latter half of the last century. Some efforts were made at earlier periods for the introduction of this kind of inland navigation, but were without success; and we may fairly date the origin of English canals from the Act of 1755, under the authority of which a canal about 11 miles in length was executed, which commences in the river Mersey, at the mouth of Sankey-brook, alongside which it runs in a northerly direction to Gerrard's Bridge and St. Helen's.

In 1759, before the Sankey-brook Canal was finished, the Duke of Bridgewater obtained his first Act of Parliament, empowering him to construct those stupendous works which, from the boldness of their design and the masterly manner of their execution, have justly obtained for himself, and for James Brindley, the extraordinary self-taught genius by whom they were planned and executed, a renown of the highest order. These works, carried forward in defiance of natural difficulties, which were at that time deemed insurmountable, opened a new era in the annals of inland navigation, and though they may since have been equalled, have never been surpassed.

The great public utility of these canals of the Duke of Bridgewater, and the immense revenues which they have continued to produce to their proprietors, have acted as powerful incentives to the undertaking of similar works. The navigable canals used for the transport of goods and produce in England alone are estimated now to exceed 2200 miles in length, while the navigable rivers exceed 1800 miles, making together more than 4000 miles of inland navigation, the greatest part of which has been created or rendered available during the last eighty years.

In the Report of the Select Committee of the House of Commons on the State of the Poor in Ireland, which sat in 1830, it was with truth remarked, that "the effect of opening lines of inland navigation, when

formed upon proper scientific principles, and executed with due economy, has been, on the concurrence of all testimony, the extension of improved agriculture, the equalisation of prices of fuel and provisions in different districts, the diminishing the danger of scarcity in both of these necessaries of life, and advancing the general improvement of the condition of the people by the creation of a new, vigorous, and continued demand for labour."

Most of the works of this kind that have been executed have produced to the adventurers an adequate return for the capital expended. This in itself may be considered a sufficient test of their utility; but even where the proprietors have not reaped a fair advantage for their outlay, it does not necessarily follow that, as regards the country at large, the money has been ill bestowed. On this head, the remarks of the late Mr. Nimmo, upon the effects of the canals cut in Ireland, will be found, with some modifications, to be generally applicable. He observes, "the inland navigations of Ireland are chiefly remarkable for being undertaken, not to facilitate any existing trade, but chiefly to promote agriculture in the fertile districts of the interior, to create a trade where none had previously existed, and to furnish employment for the poor. The success in this way has been wonderful, and though the adventurers have not yet been repaid, and perhaps never will be, the benefit to the public and landed property of the kingdom has been great and manifest. The nation has been saved the payment of a bounty of 100,000*l.* per annum for bringing corn to Dublin, for in place of this being the case that city has now become one of the first corn-ports of Europe; and Ireland in general, which half a century ago imported corn to the value of half a million annually, has now a surplus produce in that article to the value of 4,000,000*l.* per annum, while the whole expenditure, whether in public or in private works of navigation, even including the interest paid on loans, hardly amounted to 3,000,000*l.*"

The advantages thus strikingly brought forward by Mr. Nimmo have resulted from means of internal intercourse, which, when contrasted with those accomplished in England, must appear insignificant. The whole extent of navigable canals at this moment available in Ireland does not exceed 300 miles, and, including navigable rivers, the entire water-communication is not much beyond 500 miles for the whole island. What the condition of that fertile country might become if its means of communication were placed upon an equal footing with those of the midland and southern counties of England, is a question of the highest interest to every one who has at heart the moral and intellectual advancement of the Irish people, and, as a consequence, the general prosperity of the United Kingdom.

It is not the least singular part of the case, that, while so much has been done in England to supply a natural deficiency of water-communi-

cation, the existing facilities for executing such works in Ireland have, on the contrary, been of the most encouraging description. The neglect which these facilities have met with is not to be accounted for upon the generally operating principle, that where nature has done much, there human ingenuity is less called forth. The neglect of the people to take advantage of the boons of nature has for the most part been such as to render them of none effect. The Shannon, the most majestic river in the United Kingdom, which, with its lakes and lateral branches, receives the drainage of a considerable portion of Ireland, and appears formed by nature to act as the great artery of the island, for facilitating its agricultural and commercial operations, by marking out a line for the expeditious and cheap conveyance of produce and merchandise, required only a little assistance from art to bring all its usefulness to bear upon the prosperity of the country; yet this little was long withheld, and the grand designs of nature frustrated through the apathy, or something even less excusable, of the people or government, so that this river was not inaptly compared to *a sealed book*. This noble stream flows during its course 230 miles through the centre of the island, and may be said to offer the blessings of commerce and its civilizing results to 10 out of 32 of the counties into which Ireland is divided.

The great capabilities of the river Shannon have been long acknowledged. At the Summer Assizes of 1794, the High Sheriffs and Grand Juries of the counties of Roscommon, Leitrim, Mayo, Galway, Clare, Limerick, King's County, and Tipperary, resolved that "the completing of the navigation of the river Shannon, and the great rivers adjoining thereto, from Lough Allen to Limerick, will tend effectually to improve and open the home and foreign markets to the produce of more than 2,000,000 of acres of land in the heart of the kingdom; and that the execution of this great navigation will effectually advance the commerce, manufactures, agriculture, and population of this kingdom, and the consequent strength of the empire at large."

Through an unaccountable want of enterprise and even common worldly forethought on the part of those landholders whose properties would have been improved by following up the recommendation embodied in the foregoing resolution, nothing effectual to that end was done during the forty years that followed this declaration. In the three years from 1818 to 1820 Parliament indeed voted 21,000*l.* for making or repairing works on the Shannon, but these grants appear to have been expended with but little judgment.

In a Report addressed to the Government so recently as the 30th of April, 1833, by Colonel Burgoyne, the Chief Commissioner of the Board of Public Works in Ireland, the neglect here mentioned is thus noticed: "It is indeed surprising to find so noble a river, running through so fine a country, in such a state of neglect. The soil on its

banks is of the most fertile nature; iron, marble, slate, and various other productions of superior quality are also to be found in abundance. Though great capabilities exist for easy intercourse, a perfect stagnation unhappily prevails; and, where forests of masts, and the bustling activity of commerce should be witnessed, the scene is desolate and only varied occasionally by the passage of some straggling boat, which with difficulty, and perhaps with only half a cargo, is striving to make its way to one of the Dublin canals. There is, perhaps, no part of the British dominions where such an opening is presented for prospective advantages."

From a very remote period, almost the only use made of this river, through a great part of its course, was to convert it into a fish-pond; its channel was artificially obstructed, and rapids were created in order to provide "eel and salmon weirs, which were established at pleasure, under authority of the proprietors of the banks, and presented the greatest difficulties in the way of navigation."

At length the improvement of this river was taken seriously in hand by Government. Accurate surveys of the whole of its line were made by competent engineers, whose reports were laid before Parliament: plans were formed for rendering the stream navigable throughout its course, from Lough Allen in the county of Leitrim to its mouth; and an Act was passed on the 9th of September, 1835 (5 & 6 Wm. IV., c. 67), authorizing the completion of the necessary works under Commissioners nominated by the Treasury, with power to remove obstructions and to annul any private rights that might exist unfavourable to the object, making compensation for the same. The expense of these works was, in the first instance, to be wholly defrayed out of the public revenue; one-half of the sum, whatever it might be, to be made a free grant, and the other half to be repaid by twelve half-yearly instalments, out of the surplus tolls; and in the event of these being insufficient, power was given to the Commissioners to raise the deficiency by a local rate or assessment upon the adjoining counties and districts, in proportions and according to the particular extent of the benefits which each may be supposed to have derived from the improvements.

The money expended by the Government Commissioners in the execution of their task amounted, at the end of 1849, to upwards of 500,000*l.*, by means of which various improvements have been made in the navigation below Limerick, and the river has been thrown uninterruptedly open between that city and Lough Allen, a distance of 143 miles in a direct course; so that this noble river has been made available for steam-boats and other vessels of considerable burthen from its mouth to Lough Allen, opening a continuous navigation of more than 190 miles, and providing

an excellent water-communication between Limerick and Dublin, and the manufacturing towns in the north of England.

It is questionable whether the mode adopted for obtaining repayment of half the cost of the works be the most judicious that could have been found. It certainly appears equitable that those who will in a peculiar manner benefit by the improvements should repay at least a part of the cost; and if the proprietors of estates thus circumstanced had been called upon to contribute towards the gradual extinction of the debt incurred to the public, they could have had no just cause of complaint, since they would have found themselves benefited in a far greater degree than could be counterbalanced by the charge. But it is of the very greatest importance that the high roads of commerce, and especially where a traffic has to be created, should not be encumbered with heavy tolls. By burthening the navigation at the very commencement, when encouragement is most needed, with so heavy a sum annually as one-twelfth part of the whole expenditure, it is much to be feared that the rate of toll must be fixed so high as to act as a considerable discouragement. It may be questioned whether it would not be more for the advantage of the landowners themselves in the counties through which the navigation is carried, at once to charge themselves with the gradual redemption of the debt, rather than attempt to throw the burthen upon the public at large. The course proposed may place an obstacle in the way of that free intercourse by which new markets might be opened for their products, and the resources of the soil might be rendered capable of a full development, through the ample supply of manures essential to the perfection of agricultural labours, and which, although lying comparatively at their doors, had previously been unattainable through the absence of a ready and especially a cheap mode of conveyance.

There are considerations connected with the peculiar circumstances in which the population of the south and west of Ireland are placed, which seem to give additional cogency to the reasons here urged in favour of cheapening the means of transport. What is principally wanted towards ameliorating the physical condition of the working classes of Ireland, is a steady market for their labour. It was the want of certain employment which, until the establishment of a poor law, drove them of necessity into the system of hiring, each one for himself, one or two acres or even a few roods of ground, at an exorbitant rent, as the only resource left against absolute starvation. Let the value of farms be improved by the means above stated, and there can exist no reason why their proprietors should not retain the occupation of the land, and give continuous employment to an adequate number of labourers. The improvement of internal navigation, the opening of roads, and the con-

struction of bridges, during their progress, give employment to great numbers of labourers, who, in proportion as these works are completed, by that very means find a demand for their labour created which is calculated to avert some of the difficulties that have been found to accompany the early stages of a poor law.

The Commissioners for Inquiring into the Condition of the Poorer Classes in Ireland, proposed, in their Third Report, the appointment of a Board of Improvement, which should have power "to enforce improvements in property at the expense of the property improved," upon the same principle as that adopted in the laws which form the constitution of the Bedford Level Corporation in England: that draining and fencing, wherever necessary, should be enforced by law under the directions of Local Commissioners to be appointed in every district, and who should be under the control of the Board of Improvement: that the funds required for carrying on such works, and for the making of roads and bridges, might be advanced by the issue of Government Exchequer Bills, the interest and redemption of which should be provided for by means of rates made upon the property in each district: and that in order to instruct the cultivators in the best methods of managing their land, model farms should be established in every district, and each farm be placed under the direction of a person competent to give instructions, and practically to exhibit their value, by introducing the most approved course of cropping upon the farm under his care.

Superadded to these preparations, the Commissioners strongly recommended an extensive system of emigration, "not by any means as the main relief for the evils of Ireland, but as an auxiliary essential to a commencing course of amelioration."

Having brought these preparations into operation, the Commissioners are of opinion "that provision should be made by law towards the relief of the aged and infirm, orphans, helpless widows with young children, and destitute persons in general."

Two methods are pointed out in the Report whereby the funds for this purpose may be provided. One of these—to the adoption of which the majority of the Commissioners were inclined—suggests that those funds "should be provided in part by the public through a national rate, and in part by private associations, which, aided by the public, should be authorized to establish mendicity houses and alms-houses, and to administer relief to the poor at their own dwellings, subject, however, to the superintendence and control of the Poor Law Commissioners." The second method pointed out is, that "the whole of the funds should be provided by the public, one portion by a national rate, and another by a local rate, and should be administered, as in England, by the Board of Guardians of each district."

Allusion has already been made (p. 61) to the different proportions

in which the population of Great Britain and of Ireland are engaged in agricultural pursuits. It is calculated that by draining and reclaiming bogs, about five millions of acres may be additionally brought into cultivation in Ireland, when the quantity of cultivated land would amount to 19,600,000 acres. If the proportionate number of labourers employed upon this quantity of land were assimilated to the number employed in England, it would give occupation to about 605,000 labourers, being very few beyond one-half the number of male agricultural labourers of Ireland, as ascertained at the census of 1841.

The course here proposed could not be otherwise than gradually adopted, and we may hope that in the same degree the Irish people may be brought to exhibit other evidences of their improved condition—that they may avail themselves of the great natural facilities which their country offers for extended commercial intercourse, and for the establishment of manufactures. "It has been questioned," say the Commissioners, from whose Report so many quotations have already been made, "whether Ireland possesses sufficient coals within herself for manufactures; but coals are now carried to Ireland so rapidly and at so little cost from the English collieries, that manufactures cannot now be prevented from spreading in Ireland by want of fuel. What they are prevented by is want of order, of peace, of obedience to the laws, and that security of property which never can exist until the general habits and condition of the people are thoroughly improved."

Various sums have from time to time since the Union been granted by the Imperial Parliament for the promotion of public works, with the view of providing employment for the people in Ireland; but although these grants amount in the aggregate to a large sum, their application has been productive only of partial and temporary good.

That the sums so expended by the country at large for the improvement of internal communications in Ireland have not been unproductive, may be fairly inferred from the following statement of traffic upon the Grand and Royal Canals and the Barrow Navigation, on the average of the three years 1821 to 1823, when compared with the average of the three years from 1831 to 1833:—

	Average of Traffic 1821 to 1823. Tons.	Average of Traffic 1831 to 1833. Tons.
Grand Canal	140,236	227,169
Royal Canal	88,190	141,973
River Barrow, down . .	23,770	35,487
„ up . .	19,478	30,558
Tons . .	271,674	435,187

Showing an increase of traffic in ten years amounting to 60 per cent.*

* There does not appear to have been any increase in the traffic since 1833.

The Grand and Royal Canals of Ireland were constructed upon a scale of magnitude far greater than was necessary, and consequently at a much more considerable cost than would have sufficed for the attainment of the objects in view; still there is reason to hope that as a money speculation they might be brought to pay the proprietors, when, as we may hope, the resources of the country shall be further developed than they are at present. From the beginning of the present century to the year 1846 Parliamentary grants were made in favour of public works in Ireland, amounting to more than 2,000,000*l.*, and expended chiefly upon undertakings connected with this branch of our inquiry.

It appears that a proper appreciation of the value of inland navigation to the country is far from being generally felt in Ireland. So long ago as the year 1824, a canal was projected, and an Act of Parliament obtained, at the instance of some influential noblemen and gentlemen connected with the north of Ireland, authorizing the formation of an incorporate company for the construction of the necessary works to connect Lough Erne with Lough Neagh, and thus by a cutting, forty-six English miles in length, to render available a continuous navigation of 130 miles. The navigation as proposed would intersect Ireland from east to west, passing through populous and fertile agricultural districts, where theretofore the only practicable method of conveying the produce of the soil to market, or to the ports of shipment, was the tedious and expensive one of carriage on the backs of horses. The whole cost of the undertaking was under 200,000*l.*, of which sum Government consented to advance three-fifths, at a low rate of interest; yet it has only been after years of anxious efforts on the part of the promoters, that subscribers could be found willing to advance the remaining two-fifths. This work, under the name of "The Ulster Canal," has been completed according to the plans of the late Mr. Telford, and promises to produce great advantages to the counties of Fermanagh, Tyrone, Donegal, Leitrim, and Cavan. It was partially opened for use in November, 1837, and completed a few years thereafter.* During its progress this work proved a great blessing to the district through which it passes; it gave constant employment at fair wages to a great number of labourers, and was the means of reclaiming many among them from those habits of reckless indifference and that passion for ardent spirits which are so fatal to the happiness of the working classes in Ireland. With the power of saving out of their wages, the habit has arisen. The whiskey-shop has been abandoned, and several among those who were

* The Ulster Canal has now been for some time opened for traffic, and promises to be of great and increasing benefit to the district through which it passes, by affording an outlet for agricultural produce. It was of great use in 1847 in conveying food in the contrary direction from the ports to the interior of the country. It has not hitherto yielded any revenue to the shareholders.

first employed laid by sufficient money to enable them to emigrate to the United States and to Canada, where they have constituted themselves proprietors, and have before them the certainty of future comfort and independence.

Very early in the present century the Caledonian Canal was projected and commenced. This truly magnificent work consists of a series of canals and navigable lochs, extending from Corpach Basin, in the tideway of Loch Eil, at the north end of Linnhe Loch, near Fort William, to the Moray Firth, on the west side of Inverness. The total length of this navigation is 60⅛ miles, of which 23 miles are artificial cutting, and the remaining 37 miles are natural lochs or lakes which have been rendered navigable. This canal being projected chiefly with a view to facilitate the trade between the Baltic, the western ports of Scotland, and Ireland, is 15 feet deep throughout; its surface breadth is 120 feet, and its breadth at bottom, 50 feet. Its summit level is 91 feet above the sea at low water; it has 28 locks, which are each 172 feet long. Eight of these locks, situated at the eastern side of this navigation, to which the name of Neptune's Staircase has been given, are considered to be works of the very first order, and attest the skill of the engineer, the late Mr. Telford. The cost of this canal, according to the Report of the Commissioners appointed for superintending its execution, has been 1,149,613*l.*: it was opened for traffic in October, 1822, but has hitherto been little used, and as a speculation may be considered unprofitable; the tolls received when set against the cost of maintaining the canal, leaving a deficiency exclusive of any charge for interest on the capital expended. This result has been in part attributed to the discriminating duties upon European timber in favour of our North American colonies, which materially interfered with the branch of trade upon which reliance was chiefly placed for producing an adequate return for the capital expended.

It appears from the Reports made by the Commissioners to whom the management of this canal is intrusted, that the traffic upon it was progressively increasing. In the winter of 1836-37, several Baltic trading vessels passed through, and the further employment of steam-vessels opened a considerable traffic in sheep and black cattle between the Highlands and Glasgow. This last-mentioned object is greatly facilitated by the Crinan Ship Canal, a cutting 9½ miles in length, and 12 to 15 feet deep, across an isthmus in Argyleshire, lying between Loch Crinan and Loch Gilp. The summit level of this canal is 58 feet above the level of the sea, and is attained by means of 15 locks. The distance which by this short cutting is saved between the termination of the Caledonian Canal at Fort William and Glasgow is 70 miles. Besides the cattle trade already mentioned, the number of passengers by steamboats is considerable, and constantly increasing, having been 11,344

in 1835, and 17,862 in 1836: this canal admits vessels of 160 tons burthen.

There passed upon the Caledonian Canal in the year between 1st May, 1836, and 30th April, 1837—

Vessels from the West to the East Sea	216
" " East to the West Sea	249
Passages on parts of the canal	578
" made by steam-vessels	199
	1242

The tonnage rates upon which amounted to 2,520*l.*

The canals begun and completed since 1800 within the United Kingdom are—

		Miles.
Baybridge Canal	Sussex Length	3¾
Birmingham and Liverpool	Staffordshire, Shropshire, and Cheshire	39
Bude Haven and branches	Cornwall and Devonshire	45
Carlisle	Cumberland	11½
Croydon	Kent and Surrey	9¾
Glastonbury	Somersetshire	13¼
Grand Surrey	Surrey	4
Grand Union	Leicestershire and Northamptonshire	45
Leeds and Liverpool (branches)	Yorkshire and Lancashire	7
Leven	Yorkshire	3
Liskeard and Looe	Cornwall	5¼
Macclesfield	Cheshire	29¾
Newport Pagnell	Buckinghamshire	1¼
North Walsham and Dilham	Norfolk	7
North Wilts	Wiltshire	8
Portsmouth and Arundel, and branches	Sussex and Hampshire	16
Regent's	Middlesex	8½
Rochdale	Yorkshire and Lancashire	31½
Royal Military	Kent and Sussex	30
Sankey-brook (extension)	Lancashire	3½
Sheffield	Yorkshire	4
Tavistock	Devonshire	6
Thames and Medway	Kent	7¼
Wey and Arun	Surrey and Sussex	18
Wilts and Berks	Wiltshire and Berkshire	52
Caledonian	Inverness-shire	60¾
Edinburgh and Glasgow Union	Stirlingshire, Linlithgowshire, and Edinburghshire	30
Glasgow, Paisley, and Ardrossan	Ayr, Renfrew, and Lanarkshire	11
Glenkenns	Kirkcudbrightshire	25¾
Ulster	Fermanagh, &c.	46
	Total	582¾

A statement was some years since laid upon the table of the House of Commons containing an account of the tonnage received upon goods —principally salt—conveyed upon the river Weaver, which was rendered navigable at an early part of the eighteenth century. Tolls of this kind are usually received by private associations, and it is therefore difficult to obtain any statements of their amount, which, as the rates are seldom varied, would afford a good test of the progress of the traffic carried on. It will be seen from the following figures that the quantity of goods conveyed upon the Weaver amounted in 1836-7 to nearly double what it was at the beginning of the present century:—

An Account of the Gross Amount of Tonnage Dues received on the River Weaver and the Weston Canal, in each Year from 1801 *to* 1837.

Years.	Gross Amount of Tonnage received.	Years.	Gross Amount of Tonnage received.	Years.	Gross Amount of Tonnage received.
	£.		£.		£.
1800— 1	15,407	1813—14	18,357	1825—26	22,988
1801— 2	16,490	1814—15	29,091	1826—27	20,868
1802— 3	14,809	1815—16	23,194	1827—28	23,017
1803— 4	14,023	1816—17	13,169	1828—29	26,594
1804— 5	15,659	1817—18	15,600	1829—30	28,046
1805— 6	17,570	1818—19	22,474	1830—31	30,221
1806— 7	16,630	1819—20	19,116	1831—32	28,870
1807— 8	17,524	1820—21	19,062	1832—33	29,800
1808— 9	17,076	1821—22	16,701	1833—34	32,156
1809—10	21,744	1822—23	17,758	1834—35	29,384
1810—11	23,846	1823—24	21,122	1835—36	26,270
1811—12	16,379	1824—25	21,332	1836—37	27,916
1812—13	20,590				

The whole extent of the canals existing in France at the end of the last century was very little beyond 500 English miles. Eleven lines, some of which were indeed projected and even begun before the French Revolution, have since been completed, or are now on the point of being so. These canals, eleven in number, are together 1250 English miles long, and have cost the French Government more than ten millions sterling. The eleven canals are—

				Miles.
1.	Rhone and Rhine Canal	from	St. Jean de Losne to Strasburg . Length	203
2.	Somme	„	„ St. Limin to St. Valery	91½
3.	Ardennes	„	„ Donchery to Neufchâtel and Vouziers . .	61
4.	Burgundy	„	„ Roche sur Yonne to St. Jean de Losne . .	141
5.	Nantes and Brest	„	„ Nantes to Brest	218
6.	Ille and Rance	„	„ Rennes to Dinau	50
7.	Blavet	„	„ Pontivy to Hennebon	34½
8.	Arles and Bouc	„	„ Arles to Bouc	27½
9.	Nivernais	„	„ Auxerre to Decise	103
10.	Berry	„	„ Rhimbé to Sancoins, Tours, and Montluçon	186
11.	Loire	„	„ Dégoin to Briare	134
			Total	1249½

Some magnificent works of this kind have been executed in the United States of America, where in 1840 canals were in actual operation, affording 4032 miles of artificial inland navigation, distributed in the several States as follows :—

	Canals.	Miles.		Canals.	Miles.
Maine	1	50·50	North Carolina . .	2	13·50
New Hampshire . .	5	11·13	South Carolina. . .	8	52·45
Vermont	3	1·06	Georgia	2	28·
Massachusetts . .	6	103·50	Alabama	2	51·75
Connecticut . . .	2	61·50	Louisiana	4	99·25
New York	14	985·94	Illinois	1	105·90
New Jersey . . .	3	147·75	Indiana	2	217·
Pennsylvania . . .	16	973·81	Ohio	10	764·
Delaware	1	13·63			
Maryland	1	136·	Total . .		4,032·92
Virginia	4	216·25			

Most of the canals constructed on the continent of Europe have been executed at the expense of the governments of the countries in which they are situated. In England, nearly all our canals owe their existence to the efforts of individuals or of joint-stock associations. In the United States of America they have been made by associations of individuals, and by the legislatures of the separate States, aided occasionally by subscriptions on the part of the general government, and by loans obtained in England.

The splendid canal which connects the waters of the Hudson with Lake Erie surpasses by far in extent any similar work in Europe, and it is questioned whether any integral line of artificial navigation in China is of equal extent. It measures 363 miles, and is as remarkable for the rapidity with which it was completed, as for its extent. The difference in level to be overcome was 688 feet, and required 84 locks. The work was projected, and surveys were made, by order of the legislature of New York in 1808; but difficulties of various kinds, among which was the war with England, prevented the actual beginning of the work until July, 1817; it was completed in October, 1825, at an expense of more than ten millions of dollars. An enlargement of this canal was ordered by the State Legislature to be undertaken in 1835. The cost of this enlargement was estimated at more than 23 millions of dollars. More than ten millions had been expended in 1841. Another canal, 64 miles long, was finished in 1823, connecting the Erie Canal with the waters of Lake Champlain, and cost 1,200,000 dollars. The utility of these canals to the country through which they pass may be estimated from the amount of the tolls collected, which in the 18 years from 1831 to 1848 was as follows:—

Years.	Dollars.	Years.	Dollars.	Years.	Dollars.
1831	1,194,610	1837	1,238,896	1843	1,982,623
1832	1,196,008	1838	1,518,299	1844	2,154,234
1833	1,422,605	1839	1,617,246	1845	2,067,061
1834	1,294,649	1840	1,607,334	1846	2,461,975
1835	1,492,811	1841	1,931,491	1847	3,333,347
1836	1,614,336	1842	1,664,904	1848	2,947,881

The Erie Canal is the property of the State of New York, which has also constructed and derives a revenue from six other canals, the aggregate length of which is 220 miles The tolls collected on the seven canals from 1843 to 1848 were:—

Years.	Dollars.	Years.	Dollars.	Years.	Dollars.
1843	2,082,145	1845	2,646,117	1847	3,635,380
1844	2,446,038	1846	2,756,120	1848	3,279,443

The Delaware and Hudson Canal, 109 miles long, is the property of an incorporated company: its cost was 2,200,000 dollars, and its principal use is the conveyance of coals from the Pennsylvanian mines on the Lackawana river to the city of New York. An extension of this canal, 36 miles in length, has been completed by another private company.

The State of Pennsylvania has not been backward in promoting similar improvements. In a report made by the Canal Commissioners to the State Legislature, dated 31st December, 1835, it is stated, that "upwards of 600 miles of canals and slack-water navigation" have been completed since 1825, in addition to nearly 120 miles of railroads. The success which has attended those works undertaken by the State has stimulated private adventurers to embark in similar undertakings; so that at the time the Commissioners made their report, "there were completed, or in course of construction, about 400 miles of canal, and 520 miles of railroad belonging to companies, swelling the aggregate to 1000 miles of canal, and 640 miles of railroad, within the commonwealth." The most important of these works is that belonging to the State, and which connects Philadelphia with Pittsburg, a distance of 394 miles. The tolls collected on the State canals and railroads in 1835 amounted to 684,357 dollars. In the State of Ohio, which scarcely half a century ago was a perfect wilderness, there are at this time in active and profitable operation nearly 400 miles of artificial navigation. The Ohio Canal, which connects Lake Erie (and consequently the city of New York) with the Ohio river, is 324 miles long, and was completed in October, 1832, little more than seven years from the date of its commencement. By the works here described an uninterrupted line of navigation has been secured from the Bay of New York to the Gulf of Mexico, affording means for expediting the produce of the various States through which it is carried, and thus doing more towards developing the resources of the country than might otherwise have been effected in the course of centuries.

The canals that have been thus noticed form but a small part of the artificial inland navigation of the United States, as appears from the list already given. The individual works are, indeed, too numerous to admit of their description here; but enough has been said to show the energy with which these public improvements are taken up and completed by the American citizens, and to prove the judgment with which their estimates of advantage have been formed. The New York canals were executed with the capital borrowed on credit of the State: already a large part of their cost has been realized from the tolls, and in a few years the State will be in possession of an unincumbered and splendid income from this source, which will lighten considerably the burthen of taxation to the community.

CHAPTER IV.

STEAM NAVIGATION.

First Attempts at Steam Navigation—Steam-Vessels built, 1814 to 1849—Steam-Vessels employed in British Empire, 1849—Annual Progress, 1814 to 1849—Changes effected by this Invention—Its Application to Commerce—Passage-Vessels to America—To the West Indies—To India—Steam Trading Vessels employed in Coasting and Foreign Trades—Steam-Vessels belonging to various Foreign Countries.

THE application of steam power to the purpose of propelling vessels through the water, although proposed one hundred years ago by Jonathan Hulls, and attempted in France, in the United States of America, and on the Forth and Clyde Canal between the years 1781 and 1790, was not succesfully accomplished until after the beginning of the present century. The first practical application of this important improvement was made by Fulton, who, putting in execution the instruction he had gained from Mr. Miller of Dalswinton, by witnessing his experiments on the Forth and Clyde Canal, established a steam-boat in 1806 or 1807 which plied successfully on the river Hudson, between New York and Albany—a distance of 160 miles. The first steam-boat that was worked for hire in this kingdom was the Comet, a small vessel of 40 feet keel and 10½ feet beam, with an engine of three-horse power, which plied with passengers on the Clyde in 1811; two years later the Elizabeth, of eight-horse power, and the Clyde, of fourteen-horse power, were placed on the same river. Since that time the progress of this invention has been rapid to a degree that could never have been anticipated.

From a return made by the Registrar-General of Shipping, it appears that in the year 1849 there were employed at different ports in the United Kingdom, and her colonies, 1296 steam-vessels, the aggregate burden of which was 177,310 tons, viz.:—

	Vessels.	Tons.
In the Ports of England . . .	865	103,154
„ Scotland . . .	166	29,206
„ Ireland . . .	111	26,369
In Guernsey, Jersey, &c. . . .	7	955
In the Colonies	147	17,626
	1,296	177,310

These were exclusive of vessels belonging to Government.

The number and tonnage of steam-vessels built and registered in the United Kingdom and the British Colonies, in each year from 1814 to 1849 have been as follows :—

Steam Vessels Built and Registered in the United Kingdom and the British Colonies.

Years.	England.		Scotland.		Ireland.		United Kingdom.		Plantations.		Total.	
	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.
1814	..	..	5	285	..	..	5	285	1	387	6	672
1815	2	161	7	625	..	..	9	786	1	608	10	1,394
1816	4	298	..	270	..	..	8	568	1	670	9	1,238
1817	4	227	4	194	..	..	7	421	3	1,633	9	2,054
1818	3	1,124	3	216	..	..	6	1,340	3	1,198	9	2,538
1819	2	175	2	167	..	..	4	342	..	..	4	342
1820	3	102	4	403	1	150	8	655	1	116	9	771
1821	12	1,463	10	1,545	..	..	22	3,008	2	258	23	3,266
1822	23	2,080	4	369	..	..	27	2,449	1	185	28	2,634
1823	17	2,344	2	125	..	..	19	2,469	1	52	20	2,521
1824	12	1,687	5	547	..	..	17	2,234	..	..	17	2,234
1825	19	2,600	5	403	..	..	24	3,003	5	1,189	29	4,192
1826	50	5,920	22	2,718	..	..	72	8,638	4	404	76	9,042
1827	18	2,264	9	994	1	118	28	3,376	2	408	30	3,784
1828	25	1,687	5	352	..	..	30	2,039	1	246	31	2,285
1829	13	1,080	3	671	..	..	16	1,751	..	..	16	1,751
1830	10	931	8	814	..	..	18	1,745	1	481	19	2,226
1831	24	2,054	7	695	..	..	31	2,749	5	1,687	36	4,436
1832	19	943	14	1,908	..	..	33	2,851	5	1,239	38	4,090
1833	27	1,964	6	964	..	..	33	2,928	3	1,017	36	3,945
1834	26	3,453	10	1,675	..	..	36	5,128	3	628	39	5,756
1835	63	6,844	23	4,080	..	..	86	10,924	2	357	88	11,281
1836	43	5,924	20	2,834	..	..	63	8,758	6	492	69	9,700
1837	53	6,223	22	4,488	3	958	78	11,669	4	478	82	12,147
1838	66	6,286	18	3,263	..	..	84	9,549	3	288	87	9,837
1839	43	2,885	18	2,968	1	286	62	6,139	3	383	65	6,522
1840	59	6,186	16	4,110	..	..	75	10,296	3	461	78	10,757
1841	38	3,158	9	7,863	1	342	48	11,363	6	1,028	54	12,391
1842	47	9,605	10	2,999	1	1,112	58	13,716	9	1,215	67	14,931
1843	39	3,858	7	2,271	..	..	46	6,129	7	610	53	6,739
1844	50	3,350	13	2,456	2	307	65	6,113	8	817	73	6,930
1845	42	6,544	23	4,350	..	..	65	10,894	8	1,056	73	11,950
1846	59	11,831	14	3,399	4	726	77	15,956	11	1,216	88	17,172
1847	78	7,929	24	7,915	1	326	103	16,170	12	1,163	115	17,333
1848	80	5,343	32	9,381	2	610	114	15,334	14	1,142	128	16,476
1849	43	5,919	24	6,516	1	63	68	12,498	12	982	80	13,480

The celerity and the certainty with which voyages are performed by the aid of steam-power, joined to their superiority in regard to safety, have long occasioned steam-vessels to be preferred as passage-vessels wherever they can be employed; and within the last few years they have, in a great degree, superseded the use of sailing-vessels for trading purposes also, where the distance to be accomplished is not very great, and where the bulk of the goods to be conveyed is not considerable in proportion to their value. A very large portion of the trade between Hamburg and the ports of the United Kingdom is now carried on by means of steam-vessels.

The progress in each year, from their first introduction, has been as follows :—

Steam Vessels belonging to the British Empire, in each Year, from 1814 to 1849.

Years.	England.		Scotland.		Ireland.		United Kingdom.		Guernsey, &c.		British Plantations.		Total.	
	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.	Vess.	Tons.
1814	..	..	1	69	..	..	1	69	..	..	1	387	2	456
1815	3	209	5	429	..	..	8	638	..	..	2	995	10	1,633
1816	5	315	7	632	..	..	12	947	..	..	3	1,665	15	2,612
1817	7	462	6	514	1	63	14	1,039	..	..	5	2,911	19	3,950
1818	10	1,586	8	683	1	63	19	2,332	..	..	8	4,109	27	6,441
1819	11	1,459	11	825	2	264	24	2,548	..	..	8	4,109	32	6,657
1820	17	1,639	14	1,127	3	252	34	3,018	..	..	9	4,225	43	7,243
1821	29	3,377	26	2,344	4	330	59	6,051	..	..	10	4,483	69	10,534
1822	52	5,322	28	2,701	5	434	85	8,457	..	..	11	4,668	96	13,125
1823	69	7,527	26	2,347	6	487	101	10,361	..	..	10	3,792	111	14,153
1824	80	8,642	29	2,682	5	409	114	11,733	2	214	10	3,792	126	15,739
1825	112	12,280	36	3,292	3	192	151	15,764	2	214	15	4,309	168	20,287
1826	162	16,791	51	4,496	15	2,899	228	24,186	2	214	18	4,558	248	28,958
1827	173	17,734	59	5,390	21	4,194	253	27,318	2	214	20	4,958	275	32,490
1828	191	18,367	56	4,903	25	4,740	272	28,010	2	214	19	3,808	293	32,032
1829	203	19,085	57	5,399	27	5,017	287	29,501	2	214	15	2,568	304	32,283
1830	203	18,831	61	5,687	31	5,491	295	30,009	3	330	17	3,105	315	33,444
1831	223	20,304	62	5,777	35	6,181	320	32,962	4	433	23	4,750	347	37,445
1832	235	20,813	73	7,205	40	7,220	348	35,238	4	474	28	5,957	380	41,669
1833	268	23,290	71	7,075	43	7,753	382	38,122	5	555	28	6,340	415	45,017
1834	301	27,059	77	8,187	46	8,183	424	43,429	6	711	32	6,595	462	50,735
1835	344	30,351	85	9,833	68	12,583	497	52,767	6	718	35	7,035	538	60,520
1836	388	34,314	95	11,588	71	13,460	554	59,362	7	914	39	7,693	600	67,969
1837	422	37,240	109	13,368	87	18,437	618	69,045	6	832	44	8,411	668	78,288
1838	484	43,877	105	13,113	84	17,694	673	74,684	5	709	44	7,323	722	82,716
1839	517	45,160	117	15,704	86	18,376	720	79,240	3	389	47	7,102	770	86,731
1840	560	50,491	129	19,497	79	17,551	768	87,539	3	389	53	7,879	824	95,807
1841	585	59,040	126	19,133	79	17,505	790	95,678	3	389	63	8,778	896	104,845
1842	617	69,699	133	19,925	79	18,303	829	107,927	4	587	73	10,416	906	118,930
1843	646	72,042	128	19,422	81	17,824	855	109,288	..	..	73	9,674	928	118,962
1844	679	75,047	137	20,666	81	17,519	897	113,232	3	445	88	11,998	988	125,675
1845	694	78,542	139	21,529	79	18,069	912	118,140	5	642	95	12,490	1,012	131,202
1846	727	86,633	133	21,234	97	22,373	957	130,240	6	1,016	107	13,528	1,070	144,784
1847	784	93,693	140	22,672	104	23,767	1,028	140,132	5	876	121	15,549	1,154	156,557
1848	845	96,317	162	29,543	106	24,681	1,113	150,541	5	888	135	16,649	1,253	168,078
1849	865	103,154	166	29,206	111	26,369	1,142	158,729	7	955	125	13,896	1,274	173,580

When the public has been for some time accustomed to the possession of any great improvement, the difficulties and disadvantages which it has been the means of removing cease to be remembered, and we no longer value at their just rate the benefits which it has brought. The following paragraph, extracted from a popular journal, places in so strong and just a point of view some of the advantages which we owe to steam navigation, that no apology is required for its insertion here :—

" It is scarcely half a century ago since tilt-boats for the conveyance of passengers to and from London to Gravesend were, in shape and

speed, just what the Trinity-house ballast-lighters are at present, and taking four tides and more for the completion of the voyage. They were succeeded by the Dundee boats, which were, as fast sailers, both the wonder and admiration of all who witnessed the improvement. They, however, were of the most inconvenient nature, as the passengers were frequently not only called upon to embark in the middle of the night, in order to have the first of the flood, and after tacking and beating about, together with sometimes too much wind, sometimes too little wind, or none at all, besides being huddled in a low inconvenient cabin, were frequently, after being six or eight hours on the water, compelled to land at Woolwich, Blackwall, or Greenwich, and then have to find their way in the best manner they could to the metropolis. At length the progress of science introduced steam for the ferry, which, however, at first, generally took from five to seven hours to arrive in London, a length of time it was considered a desideratum to lessen. On Sunday last the Diamond started from the Gravesend pier at 4 P.M., landed her passengers in London and returned, and at 9 minutes before 8 o'clock was again at her moorings off the town pier: thus performing the two voyages, a distance of 64 miles in 3 hours and 40 minutes, including stoppages." It should have been stated that the vessel had the advantage of a favourable tide, both in ascending and descending the river.

The facility in moving from place to place, joined to the great economy, both of time and of money, that has accompanied the adoption of this mode of propelling vessels, has excited the locomotive propensities of the English people in a most remarkable degree. The countless thousands who now annually pass in steam-packets up and down the river Thames, seem almost wholly to have been led to travel by the cheap and commodious means that have been thus presented to them, since the amount of journeying by land is by no means lessened. The number of passengers conveyed between London and Gravesend by steam-packets in 1835 was ascertained by the collector of the pier-dues at the latter town to have been 670,452, not one in a hundred of whom would have been induced to make use of the Dundee boats just described. It was stated in evidence before a Committee of the House of Commons in 1836, that at least 1,057,000 passengers, including those to and from Gravesend, pass Blackwall in steam-vessels every year. In confirmation of the fact that the establishment of additional facility in travelling is embraced by persons who would not otherwise be induced to quit their homes, we may refer to the continually increasing number of licenses for stage-coaches issued every year from the Stamp Office, and to the great and constantly-increasing number of omnibuses which are continually traversing the great thoroughfares of London without displacing the hackney-carriages which were previously in use. The

number of passengers conveyed by the Hull and Selby steam-packets in the 12 months which preceded the opening of the Leeds and Selby Railway was 33,882, whereas in the 12 months that followed that event the number conveyed was 62,105.

The published lists of steam-vessels belonging to different ports in the United Kingdom show the extent to which this new mode of voyaging is adopted by the public. Scarcely any two ports of consequence can be pointed out between which steam communication is not maintained as well for the conveyance of passengers as for the transmission of goods. Besides this, the communication is regularly maintained with all the principal neighbouring ports on the continent of Europe. From London vessels proceed to the French coast almost every day: to Holland three times a-week; to Belgium as frequently; to Hamburg twice a-week, and to Lisbon and Cadiz every week. From the coast of Kent, Sussex, and Hampshire, daily departures take place to France. From Hull three vessels depart every week for Hamburg, and one is despatched to Rotterdam; the greater part of the important traffic which formerly was carried on in sailing-vessels between those ports is now conveyed through the more quick and certain agency of steam.

The table next to be given is interesting, because it exhibits a complete statistical history of steam navigation, as applied to commercial purposes in this country, from its first adoption to the end of 1849. One of the most remarkable circumstances connected with this history is the extraordinary rapidity of its development. When first adopted, few persons were so sanguine as to suppose that the utility of steam-vessels would ever be experienced except in inland river navigation, or for short distances along the coast; a very few years have sufficed for their general introduction in all the seas and rivers of Europe, and at this moment their employment serves as a means of drawing closer the connexion between the old and the new world. Large and powerful steam-ships are now constantly passing between this kingdom and the United States of America, introducing thus a degree of certainty into the correspondence between the two countries which cannot fail to be of immense advantage to the most important branch of foreign trade in which our merchants are engaged. Twice in each month mails, passengers, and specie are conveyed between England and her West Indian colonies, and by the same means communications are kept open with Mexico and a great part of South America. The voyage made in 1826 by the 'Enterprize' to Calcutta was considered a failure, and doubtless had for a time considerable influence in deterring our merchants from undertaking distant steam voyages. Other experiments of the same kind have since been made, however, and with perfect success. The years that have elapsed since the voyage of the 'Enterprize' was accomplished, have, as might reasonably be expected, brought forward

many improvements, in what was then an infant science; and although we may not, perhaps, witness in our day the establishment of a line of trading packets to India, round the Cape of Good Hope, this will be principally owing to the greater facility that attends the communication through the Mediterranean, and not because the other route is impracticable or even difficult.

A Committee of the House of Commons was appointed in June, 1837, to inquire into the best means of establishing a communication by steam with India by way of the Red Sea. The inquiry thus begun was cut short by the sudden termination of the session, but the evidence collected by the Committee contained information of great interest, tending to show the advantages to commerce that must result from the great acceleration of correspondence that would be thus accomplished.

It was stated to this Committee by Sir John Hobhouse, then President of the Board of Control, that in August, 1834, the Directors of the East India Company, acting in furtherance of a recommendation made by a Committee of the House of Commons, which sat in that year, sent directions to the Governor-General of India to despatch a steam-ship at stated periods from Bombay to Suez. In order still further to expedite the transmission of mails between India and England, the Governor of Bombay, and subsequently the home authorities in England, established a dromedary post from Bagdad to Damascus, and thence to Beyrout, on the coast of the Mediterranean, to which port the voyage of the steam-vessel that before plied to Alexandria was extended.

The speedy consequence of all these arrangements was a much more rapid communication with India than had ever before been known; in confirmation of which fact, and to show the opinion upon this important subject formed by the most competent judges, the following extract is given from a despatch sent in September, 1836, by the Government of Bombay, to the Court of Directors:—"We beg leave to offer to your Honourable Court our congratulations on the rapidity with which your wishes have of late been conveyed to all parts of your Indian possessions. The three last overland mails have brought despatches from London to Bombay in 58, 45, and 64 days; and those intended for Calcutta have been forwarded in 10 days. We have witnessed the energetic impulse this early intelligence has given to the mercantile interest, and the unbounded satisfaction it has diffused throughout all classes of the community. It is, indeed, undeniable, that a quick interchange of information is of the first advantage in commerce, and in the conduct of all public business, while it is equally true that its effect on the minds of those who serve the Honourable Company long and faithfully in this distant land, is to deprive the painful feeling of separation from their homes and country of half its bitterness. We beg respect-

fully to press these reflections on the notice of your Honourable Court, with our earnest prayer that you will ere long grant to India the much-desired boon of frequent and regular communication with Europe by the employment of a sufficient number of steam-vessels for that purpose." The despatch, from which the foregoing extract is taken, arrived in England early in the year 1837, and no time was lost in attempting to carry into effect the recommendation which it conveyed. At first a negotiation was opened with some private individuals, who proposed to perform the service required by means of a joint-stock company; but so many serious objections to this course were urged by different branches of the Government that it was abandoned, and early in June, 1837, an arrangement was concluded between the Government and the Directors of the East India Company for the establishment of a regular monthly steam communication between this country and India, by way of the Red Sea, upon the following basis:—

"The Government undertakes the transmission of the monthly mails between Great Britain and Alexandria, at the sole charge of the public, and the East India Company undertakes the transmission of these mails between Alexandria and Bombay, upon condition that one-half of the expense incurred in the purchase and navigation of steam-vessels, and of any other expense incurred in the service, is defrayed by the Government, which is to receive the whole money collected for postage of letters between London and Bombay." This arrangement was to take immediate effect, and the steam-vessels belonging to the East India Company were ordered to be employed forthwith,—two for the conveyance, on alternate months, of the mails from Bombay to Mocha, and the third for their further conveyance from Mocha to Suez. A further economy of time of from four to six days being obtainable by sending the mails overland to Marseilles instead of transmitting them by steam-packets from Falmouth through the Straits of Gibraltar, it was arranged that on the 6th of every month a Government messenger should be sent in charge of the India mail from London to Marseilles, from which port steam-packets are despatched three times every month by the French Government. By this arrangement the distance is shortened to the extent of more than 1000 miles; the direct distance by way of Marseilles and Malta being 5238, and by way of Falmouth and Malta 6310 miles; the distance by the Cape of Good Hope is 10,580 nautical miles.

The mail communications between this kingdom and its eastern empire continued on the above footing until 1841, when the Government entered into a contract for the conveyance of the mails between England and Egypt, with the Peninsular and Oriental Steam Navigation Company, which undertook further to employ powerful steam-vessels for the carrying of letters and passengers between Suez, Ceylon,

Madras, and Calcutta, towards the expenses of which the East India Company undertook to contribute 20,000*l.* per annum for five years. When this arrangement had been for some time in operation, a further extension of the plan was found necessary, and an agreement was made, to the effect that the Government should contribute 50,000*l.* per annum towards the expense of the line of steam-packets between Bombay and Suez, 115,000*l.* per annum for the service between Calcutta and Suez, and 45,000*l.* for the service between Ceylon and Hong-Kong, making in all 210,000*l.*, of which sum one-third, or 70,000*l.*, is repaid by the East India Company.

In return for this outlay, the Government and the public have the advantage of steam communication twice in each month with India, and monthly with China, by means of powerful and splendid vessels, which have hitherto answered every expectation that had been raised respecting their safety and regularity. The apparently large cost at which this intercourse is secured sinks into insignificance when we consider the magnitude of the national interests that are involved, and the countless advantages that must attend upon the rapid transmission of political and mercantile intelligence connected therewith.

The number of letters and newspapers received at the ship-letter department of the Post-office from and to Ceylon, Bombay, Madras, and Calcutta, in each of the three years ending 5th October, 1834, 1835, and 1836, were as follows:—

	1834	1835	1836
From Ceylon	6,279	4,204	7,278
„ Bombay	35,536	40,505	33,306
„ Madras	29,371	37,738	38,720
„ Calcutta	87,747	84,894	100,611
	158,933	167,341	179,915
To Ceylon	8,639	8,326	9,673
„ Bombay	24,126	24,862	24,078
„ Madras	35,285	35,250	35,470
„ Calcutta	37,689	38,341	42,712
	105,739	106,779	111,933

In the last of these three years, the number of letters from India, exclusive of those addressed to soldiers and seamen, was 149,504; the letters to soldiers and seamen were 9856; the number of newspapers was 12,649, and of franked letters 7906, making together 179,915, as above stated.

The increase in the number of letters and newspapers passing between England and our possessions in India, has, as it was reasonable to expect it would have most importantly increased since the establishment of regular mail communications, as appears from the following figures:—

	1843		1844		1845	
	Letters.	Newspapers.	Letters.	Newspapers.	Letters.	Newspapers.
Inwards .	350,767	112,058	397,657	111,444	505,192	154,940
Outwards .	370,038	429,028	441,925	536,378	448,335	686,561
	720,805	541,086	839,582	647,822	953,527	841,501
	1,261,891		1,487,404		1,795,028	

It must be remembered, that the alterations made in 1833 in the constitution of the East India Company have tended to give a great and a growing degree of animation to the commercial correspondence between India and Europe beyond that which existed before that time.

There is reason for believing that the passage by the Mediterranean route to India may be further facilitated by the construction of a railroad between Cairo and Suez, which would open a more direct communication than the dromedary post already mentioned. The isthmus has been surveyed for this object by an English engineer, and a considerable part of the materials for the railway has been collected by the Pacha of Egypt. When finished, the distance between Cairo and Suez (80 miles) might be traversed in four hours. The traffic between these places is at present considerable in the articles of coffee, drugs, and grain. If the time consumed in passing across the desert were reduced, as it might then be, to four hours, and the charge for conveyance were moderate, the trade would assuredly be much increased, and other goods would find their way from India to Europe by the same means. Silk, spices, gums, shawls, and various other articles which are valuable in proportion to their bulk, would be sent by this route rather than round by the Cape of Good Hope, because the saving of time would more than compensate for the difference in the expense. It is calculated that goods of the description just mentioned might be sent from Bombay to Marseilles in thirty days; and, with regard to a package of Cachemere shawls, valued at 20,000*l.*, there can be no doubt which route would be preferred. As to the risk of plunder, it is well known that, through the exertions of the ruler of Egypt, the property of travellers passes now as safely throughout that country as it does between London and Manchester.

Another project, the cutting of a ship-canal between the Mediterranean and the Arabian Gulf, has been seriously proposed, and surveys have been made which seem to show the reasonableness of the proposal. Such a shortening of the route between Europe and Asia must be followed by consequences the importance of which to this commercial country it would not be easy to estimate.

An Account of the Number and Tonnage of Steam Vessels, including their repeated Voyages, which entered the Ports of the United Kingdom and cleared from the same in each Year from 1820 *to* 1849; *distinguishing the Vessels employed in the Coasting Trade from those engaged in Foreign Voyages, and separating Foreign from British Vessels.*

Years.	INWARDS.								OUTWARDS.							
	Coasting Trade.		Foreign Trade.						Coasting Trade.		Foreign Trade.					
	British.		British.		Foreign.		Total.		British.		British.		Foreign.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1820	9	505	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1821	188	20,028	..	..	..	..	..	..	158	6,166	..	..	..	..	..	..
1822	215	31,596	159	14,497	10	520	169	15,017	295	42,743	111	12,388	..	..	111	12,388
1823	434	55,146	129	8,942	7	364	136	9,306	647	73,424	108	9,027	7	364	115	9,391
1824	888	124,073	139	10,893	6	312	145	11,205	1,197	147,523	208	15,796	8	416	216	16,212
1825	1,666	257,734	186	16,155	11	652	197	16,807	1,946	279,384	256	19,685	13	756	269	20,441
1826	2,810	452,995	334	32,631	38	2,256	372	34,887	3,833	518,696	268	27,206	31	1,742	299	28,948
1827	4,404	737,020	443	50,285	74	4,558	517	54,843	5,617	820,361	439	47,322	43	2,566	482	49,888
1828	5,591	914,414	482	52,679	58	3,406	540	56,085	6,893	1,009,834	472	51,887	31	1,802	503	53,689
1829	5,792	978,981	497	51,754	3	405	500	52,159	6,875	1,006,041	428	47,480	22	1,486	450	48,966
1830	6,796	1,073,506	560	62,613	42	7,781	602	70,394	6,765	1,078,100	475	54,372	53	10,274	528	64,646
1831	7,072	1,161,012	537	65,946	85	11,345	622	77,291	7,037	1,158,050	563	67,930	57	12,046	620	79,976
1832	7,769	1,256,805	537	71,493	74	7,000	611	78,493	7,732	1,255,436	564	73,898	71	12,636	635	86,534
1833	9,070	1,513,684	681	98,224	51	3,708	732	101,932	9,083	1,518,159	704	102,639	45	6,604	749	109,243
1834	10,077	1,761,752	988	146,720	12	3,164	1,000	149,884	9,972	1,749,698	896	137,607	57	12,018	953	149,625
1835	11,238	2,186,600	1,015	170,151	18	5,058	1,033	175,209	11,118	2,170,971	1,146	189,305	77	13,826	1,223	203,131
1836	12,988	2,528,216	1,122	195,722	50	10,948	1,172	206,670	12,634	2,468,327	1,225	202,499	188	23,514	1,413	226,013
1837	15,481	2,671,577	1,123	217,640	60	12,508	1,183	230,148	15,019	2,604,739	1,278	234,919	207	26,338	1,485	261,257
1838	15,771	2,959,125	1,983	286,264	441	54,401	2,424	340,665	15,489	2,871,506	2,004	289,977	466	63,009	2,470	352,986
1839	15,556	2,926,521	2,293	356,595	511	70,773	2,804	427,368	15,498	2,894,995	2,296	351,361	479	69,560	2,775	420,921
1840	15,464	2,913,505	2,057	321,651	476	61,626	2,533	383,277	15,458	2,844,656	2,173	341,397	494	66,881	2,667	408,278
1841	15,136	2,903,784	2,182	360,675	478	55,832	2,660	416,507	15,004	2,748,146	2,219	362,895	499	59,872	2,718	422,767
1842	15,115	2,961,970	2,397	389,977	492	69,426	2,889	459,403	14,635	2,743,291	2,428	399,879	517	76,301	2,945	476,180
1843	14,633	3,001,431	2,663	438,347	533	77,225	3,196	515,572	14,292	2,796,522	2,684	448,380	548	82,538	3,232	530,918
1844	15,553	3,383,160	3,124	507,549	558	85,917	3,682	593,466	15,500	3,270,499	3,063	491,115	569	85,176	3,632	576,291
1845	16,900	3,728,616	3,126	539,389	491	68,393	3,617	607,782	16,912	3,626,191	3,117	536,563	488	67,115	3,605	603,678
1846	17,448	3,924,372	3,093	576,306	616	92,555	3,709	669,011	17,383	3,837,094	2,985	558,302	621	92,063	3,606	650,365
1847	17,218	3,902,916	3,535	681,982	721	115,442	4,256	797,424	17,296	3,856,989	3,215	623,552	725	115,566	3,940	739,118
1848	17,524	4,042,775	3,377	693,344	722	130,935	4,099	824,279	17,544	3,966,290	3,162	646,807	714	126,294	3,876	773,101
1849	18,343	4,283,515	3,354	688,608	811	151,809	4,165	840,417	18,362	4,203,202	3,111	633,106	826	157,370	3,937	790,476

The above account does not include vessels arriving and departing in ballast, or with passengers only, which are not required to enter at the Custom-house. Steam-vessels were not employed in this kingdom for conveying goods coastwise previous to 1820, and, except for carrying passengers, such vessels were not engaged in foreign trade earlier than 1822.

The following table, which has been compiled chiefly from Consular returns, will show that it is not in England alone that this great invention has been encouraged. Every European power of eminence that contains a seaport within its territory, as well as several of the minor states, have vessels *steaming* under their respective flags. In the United States of America this method of conveyance for passengers and goods has been adopted with all the energy for which the American citizens are so remarkable.

Countries.	Ports.	No. of Steam Vessels.	Their Aggregate Tonnage.	Aggregate Power of Steam Engines.	Largest Vessels.	
					Tonnage.	Power.
Russia	St. Petersburg, Riga, Odessa	65	..	6,982	2,049	540
Sweden	Stockholm, Gottenburg, Carlscrona, and Ystad	61	15,203	3,275	842	200
Norway	Christiania	10	2,312	640	500	120
Denmark	Copenhagen, Elsinore	15	1,568	1,068	260	180
Prussia	Dantzig	2	96	56	55	32
Mecklenburg	Rostock	2	200	52	120	40
Hans Towns	Lübeck	4	2,054	560	820	240
„	Hamburg	8	1,986	860	560	160
„	Bremen	7	1,100	342	289	75
Hanover	Embden	1	35	25	35	25
Netherlands	Amsterdam	7	1,460	616	485	160
„	Rotterdam	31	12,200	3,750	707	400
Belgium	Antwerp, Ostend, &c.	3	3,464	1,030	1,600	500
France	Calais, Havre, Granville, St. Malo, Cherbourg, Brest, Nantes, Charente, Bordeaux, Bayonne, Marseilles, Corsica	119	not given in every case.	9,027	600	450
Spain	Coruña, Cadiz, Barcelona	13	3,621	1,450	600	180
Portugal	Lisbon, Oporto	10	2,167	815	420	160
Sardinia	Genoa, Cagliari	12	4,240	1,265	600	180
Tuscany	Leghorn	4	1,356	530	540	210
Two Sicilies	Naples, Palermo	5	2,135	910	540	260
Austria	Trieste and Venice	16	5,957	1,620	687	160
Turkey	Constantinople	14	4,315	1,864	814	300
„	Alexandria	8	not stated	644	963	220
Barbary States	Tunis	1	90	18	90	18
United States of America	Portland, New York, Lakes Champlain, &c., Philadelphia, Baltimore, Norfolk, Charleston, Savannah, Mobile, and New Orleans	261	not stated	not stated	1,000	not stated.
Texas	Galveston	2	130	55	95	45
Mexico	Vera Cruz	5	2,690	645	800	180
Venezuela	Caracas	1	122	35	122	35
Chili	Valparaiso	2	1,360	360	680	180
Brazil	Rio Janeiro, Bahia	30	not stated	1,833	420	140
Peru	Lima	2	1,400	360	700	180

It is not unlikely that the returns from which the above abstract has been made, may omit some vessels of this kind in their enumerations, but these omissions cannot be to any great extent; and it thus appears that the progress made by this country in the adoption of this new and great invention is fully equal to everything hitherto accomplished by all other countries in the aggregate.

CHAPTER V.

RAILWAYS.

Earliest Employment of Railroads in England—Number of Acts of Parliament for incorporating Railroad Companies—Traffic on Liverpool and Manchester Line—Railways completed to 1849—Railway Traffic and Revenues 1845-9—Effect upon Post Communications—Anticipated Improvements—Pecuniary Saving to the Public—Railway Accidents—Sums expended in obtaining Acts of Incorporation—Government Survey of Lines in Ireland—Persons employed on Railways—Railways in Belgium—In America.

IT has been said that railways were first brought to use in this country at the beginning of the seventeenth century, when they were employed in some of the Newcastle collieries. The railways then constructed were, however, very different from the scientifically-constructed works to which we are now accustomed to apply that name, and it was long before any progress was made towards their improvement. They were at first constructed altogether of timber, and it was not until 1767 that the first experiment was made, and that upon a very small scale, to determine the advantage of substituting iron for the less durable material. Nor does it appear that this experiment was successful or followed by any practical result, for in a volume published by Mr. Carr, in 1797, he sets up his claim to be considered the inventor of cast-iron rails. The railways which were constructed up to the beginning of the present century were all private undertakings, and each was confined to the use of the establishment—generally a colliery—in which it occurred. The public railways of England are strictly creations of the present century. It was in 1801 that the first Act of Parliament for the construction of a work of this kind received the sanction of the legislature. The following table shows that the total number of Acts passed since that time has been 1111, of which 615 were for new lines of railway.

Number of Acts of Parliament for constructing Railways, 1801-1849.

Years.	For New Lines.	For extension of existing Lines, and for giving amended and enlarged Powers.	Total.	Years.	For New Lines.	For extension of existing Lines, and for giving amended and enlarged Powers.	Total.
1801	1	..	1	1828	5	5	10
1802	2	..	2	1829	5	4	9
1803	1	..	1	1830	5	3	8
1804	1	..	1	1831	5	4	9
1805	..	1	1	1832	5	4	9
1806	..	2	2	1833	5	6	11
1808	1	..	1	1834	5	9	14
1809	3	..	3	1835	8	11	19
1810	1	1	2	1836	29	6	35
1811	3	1	4	1837	15	27	42
1812	2	1	3	1838	2	17	19
1814	1	1	2	1839	3	24	27
1815	..	1	1	1840	..	24	24
1816	1	..	1	1841	1	18	19
1817	1	.	1	1842	4	18	22
1818	1	..	1	1843	5	19	24
1819	1	..	1	1844	26	22	48
1820	..	1	1	1845	76	44	120
1821	2	1	3	1846*	225	45	270
1822	..	1	1	1847*	115	75	190
1823	..	1	1	1848*	28	57	85
1824	2	1	3	1849	..	34	34
1825	8	1	9				
1826	10	1	11	Total	615	496	1,111
1827	1	5	6				

The sums which Parliament has authorized various companies to raise for the construction of railways in each year, from 1826 to 1849, are as follows:—

Years.	£.	Years.	£.
1826	1,687,653	1830	735,650
1827	251,608	1831	1,799,875
1828	424,000	1832	567,685
1829	904,125	1833	5,525,333
Average of 4 years	816,846	Average of 4 years	2,157,136

Years.	£.	Years.	£.
1834	2,312,053	1838	2,096,198
1835	4,812,833	1839	6,455,797
1836	22,874,998	1840	2,495,032
1837	13,521,799	1841	3,410,686
Average of 4 years	10,880,421	Average of 4 years	3,614,428

Years.	£.	Years.	£.
1842	5,311,642	1846	132,096,224
1843	3,861,350	1847	40,397,395
1844	17,870,361	1848	14,620,471
1845	60,824,088	1849	8,155,332
Average of 4 years	21,966,860	Average of 4 years	47,567,355

* These numbers include new lines and extensions.

The total amount thus sanctioned during the above 24 years was 348,012,188*l.*, and the yearly average 14,500,508*l.*

It is a singular fact, that of all the railways constructed and contemplated up to the opening of the Liverpool and Manchester line, not one was undertaken with a view to the conveyance of passengers. In the prospectus published by the projectors of that work, it was indeed held out as probable that one-half of the number of persons then travelling by coaches between the two towns might avail themselves of the railway in consideration of the lower rate for which they would be conveyed, and the Directors expected to realize an income of 20,000*l.* per annum from that source; but the chief inducement held out to subscribers was the conveyance of raw cotton, manufactured goods, coals, and cattle. The following table (*see* p. 329), containing a statement of the actual traffic upon the railway from its opening in September, 1830, to Midsummer, 1836, and from the 1st of July, 1840, to the 1st of July, 1845, will show how much the anticipations of the projectors were at variance with the result. The great success attending this splendid work being in a principal degree attributable to the passengers conveyed by it, the chief inducement thenceforward to embark in similar undertakings has been the number of travellers and not the amount of goods to be conveyed. Hitherto it has been found, in nearly every case where a railroad adapted for carrying passengers has been brought into operation, that the amount of travelling between the two extremities of the line has been quadrupled.

In the case of the Liverpool and Manchester Railway, the income derived from passengers enabled the Company to meet a large amount of extraordinary expenses, and to divide regularly 10 per cent. annually upon the capital, although the outlay in the construction of the work was more than double the sum contemplated in the original estimates.

The progress of traffic on the London and Birmingham Railway in each half-year, to 30th June, 1845, has been as follows:—

Half-year ending	Passengers.	Miles Travelled.	Receipts.
			£.
30th June, 1839 . .	267,144	17,391,035	270,241
31st Dec. „ . .	341,420	22,284,830	343,910
30th June, 1840 . .	327,930	21,675,287	343,194
31st Dec. „ . .	394,688	25,931,163	405,040
30th June, 1841 . .	354,322	23,399,936	382,452
31st Dec. „ . .	413,272	27,156,212	429,023
30th June, 1842 . .	372,532	24,144,243	388,288
31st Dec. „ . .	407,840	26,563,216	420,958
30th June, 1843 . .	360,784	23,395,261	385,104
31st Dec. „ . .	419,963	26,983,482	432,357
30th June, 1844 . .	371,331	24,664,979	405,768
31st Dec. „ . .	480,637	31,122,185	450,478
30th June, 1845 . .	615,904	38,758,260	447,190

Statement of the actual Traffic upon the Liverpool and Manchester Railway, from Sept., 1830, to Midsummer, 1836, and from 1st July, 1840, to 1st July, 1845.

	From 16th Sept. to 31st Dec., 1830	From 1st Jan. to 30th June, 1831	From 1st July to 31st Dec., 1831	From 1st Jan. to 30th June, 1832	From 1st July to 31st Dec., 1832	From 1st Jan. to 30th June, 1833
Merchandise between Liverpool and Manchester	Tons. 1,433	Tons. 35,865	Tons. 52,224	Tons. 54,174	Tons. 61,995	Tons. 68,284
Road traffic	..	378	2,347	3,707	6,011	8,712
Between Liverpool and Bolton Junction	..	6,827	10,917	14,720	18,836	19,461
Coal	2,630	2,889	8,396	29,456	39,940	41,375
Passengers booked at Company's offices	No. 71,951	No. 188,726	No. 256,321	No. 174,122	No. 182,823	No. 171,421
Number of Trips—						
With Passengers	No Acc.	2,259	2,944	2,636	3,363	3,262
„ Goods	..	1,873	2,298	2,248	1,679	2,244
„ Coal	..	293	150	234	211	164

	From 1st July to 31st Dec., 1833	From 1st Jan. to 30th June, 1834	From 1st July to 31st Dec., 1834	From 1st Jan. to 30th June, 1835	From 1st July to 31st Dec., 1835	From 1st Jan. to 30th June, 1836
Merchandise between Liverpool and Manchester	Tons. 69,806	Tons. 69,522	Tons. 72,577	Tons. 76,448	Tons. 79,114	Tons. 81,415
Road traffic	9,733	15,201	11,482	12,282	15,015	14,983
Between Liverpool and Bolton Junction	18,708	19,633	22,321	24,917	22,858	21,219
Coal	40,134	46,039	53,298	55,444	60,802	68,893
Passengers booked at Company's offices	No. 215,071	No. 200,676	No. 235,961	No. 205,741	No. 268,106	No. 202,848
Number of Trips—						
With Passengers	3,253	3,317	3,325	3,222	2,347	3,353
„ Goods	2,587	2,499	2,108	2,091	2,132	2,157
„ Coal	37	32	161	355	473	536

	From 1st July to 31st Dec., 1840	From 1st January to 1st July, 1841	From 1st July to 31st Dec., 1841	From 1st January to 1st July, 1842	From 1st July to 31st Dec., 1842
Passengers booked at Company's offices	No. 394,711	No. 323,549	No. 390,323	No. 304,100	No. 344,583
Cattle, sheep, and pigs, conveyed	33,884	42,336	34,110	47,771	35,076
Goods	Tons. 88,483	Tons. 137,910	Tons. 87,060	Tons. 78,606	Tons. 81,983
Coal	46,809		47,304	51,384	45,574

	From 1st January to 1st July, 1843	From 1st July to 31st Dec., 1843	From 1st January to 1st July, 1844	From 1st July to 31st Dec., 1844	From 1st January to 1st July, 1845
Passengers booked at Company's offices	No. 287,830	No. 345,079	No. 290,197	No. 362,149	No. *535,388
Cattle, sheep, and pigs conveyed	49,569	47,400	54,642	49,096	60,709
Goods	Tons. 84,150	Tons. 94,292	Tons. 93,819	Tons. 108,013	Tons. 108,224
Coal	44,542	54,292	57,640	58,282	75,114

* Including third-class passengers, not previously taken.

The aggregate length of railways completed and in use in the United Kingdom, at the end of the year 1849, was 5996 miles, of which 4656 were in England, 846 in Scotland, and 494 in Ireland. It is stated in the Report of the Commissioners of Railways, dated 10th July, 1850, that "these 5996 miles of railway represent a capital of about 197,500,000*l.*, showing an expenditure of about 33,000*l.* per mile in the construction of the line and the provision of the necessary plant and material for working."

The number of railway passengers conveyed in carriages of various classes in each of the five years ending with 30th June, 1849, was as follows:—

Year ending 30th June.	Length of Railways open.	Number of Passengers.				Total.
		1st Class.	2nd Class.	Parliamentary and 3rd Class.	Mixed.	
	Miles					
1845	2,343	5,474,163	14,325,825	13,135,820	855,445	33,791,253
1846	2,765	6,160,354	16,931,066	18,506,437	2,193,126	43,790,983
1847	3,603	6,572,714	18,699,288	22,850,804	3,229,357	51,352,163
1848	4,478	7,190,779	21,690,509	28,334,018	749,764	57,965,070
1849	5,447	7,078,690	23,392,450	29,810,834	116,185	60,398,159

The receipts from passengers and for goods, cattle, &c., in each of the same years were:—

Year ending 30th June.	Receipt from Passengers.						Goods, Cattle, &c.	Total.
	1st Class.	2nd Class.	3rd Class.	Parliamentary Class.	Mixed Class.	Total from Passengers.		
	£.	£.	£.	£.	£.	£.	£.	£.
1845	1,516,805	1,598,115	651,903	..	209,518	3,976,341	2,233,373	6,209,714
1846	1,661,898	1,937,947	738,474	293,732	93,164	4,725,215	2,840,354	7,565,569
1847	1,675,759	2,048,080	737,452	539,977	146,734	5,148,002	3,362,884	8,510,886
1848	1,792,533	2,352,153	661,038	902,851	11,807	5,720,382	4,213,170	9,933,552
1849	1,889,646	2,502,588	651,366	1,059,785	2,590	6,105,975	5,094,926	11,200,901

It might have been expected that the greater facility of personal communication between Liverpool and Manchester afforded by the rail-road would have diminished in a very sensible degree the number of letters passing between the two towns. Such, however, is not the fact; the Post-office revenue derived from such letters having been actually increased more than 6 per cent., as appears by the following statement:—

Years.	Total Amount of Postage.	Cost of Conveyance.	Years.	Total Amount of Postage.	Cost of Conveyance.
	£.	£.		£.	£.
1828	13,432	223	1831	13,506	465
1829	12,759	223	1832	13,336	535
1830	12,701	223	1833	14,556	645
Average	12,964	223	Average	13,799	548

The mail was first sent by the railway on the 11th November, 1830. The result here stated is no doubt attributable to the celerity with which letters are conveyed and answers despatched. Since the opening of the railway between the two towns, the deliveries of letters are as frequent and as rapid as the deliveries by the twopenny post between the opposite ends of London. The Post-office authorities lost no time in availing themselves of the means which railways offer for expediting the transmission of letters. The London mails, which are despatched at eight o'clock in the evening, now arrive at Manchester and Liverpool in time for the delivery of letters at the commencement of business hours on the following day, and of course the transmission of letters from these towns to the metropolis is equally rapid. Besides this, there are 740 mail-bags taken up and delivered every day at the various stations along the line, affording a stimulus to business which cannot fail to be beneficial. The like advantage has been and will continue to be made available upon other lines as completed, so that the fulfilment of the reasonable expectations formed from this application of steam power will, before long, bring Edinburgh, in this respect, almost as near to the metropolis as any one of the towns which lies beyond the limit of the threepenny post delivery was placed only a few years ago. Under the then existing regulations, indeed, it took as long a time to convey a letter from Kingsland to Camberwell, a distance of only 5 miles, as will then suffice for its transmission from the Scottish to the English capital.

It would be unreasonable to limit our anticipations of improvement under the railway system to results equal to what has been hitherto obtained. The first work of the kind, which has, and that unexpectedly, produced a marked economy of time in travelling, was opened in September, 1830, and at once achieved so much in this respect, that the highest aim on the part of the projectors of most similar undertakings for a time was to equal, without a thought of surpassing, its performance. Already, however, have the able engineers engaged upon these works contrived means for throwing that performance into the shade. The distance between London and Exeter, 193¼ miles, is now constantly accomplished in four hours and a half, and it forms a subject of complaint that the distance between London and Liverpool, 210 miles, occupies so long a time as six hours!

If it is unreasonable to set limits to the amount of improvements in those particulars which have been here considered, it must be equally unreasonable and indeed impossible to limit the modes in which this new agent in civilization may be brought to minister to the profit and convenience of society. It seems scarcely possible to assign bounds to the good that will follow from the cheap, easy, and rapid communication it will offer between all parts, however distant from each other, of the kingdom. Every spot will by this means obtain a wider market for its

productions, and have a wider field whence to draw its supplies. A great part of the money now actually expended upon the conveyance of persons and goods will be saved to the country, and become available capital for the extension of its commerce, and the completion of still further improvements. According to a published statement of the working of the Liverpool and Manchester line, it appears that the gain thus produced to the public at large on that single road amounts to very little short of a quarter of a million annually, viz. :—

	£.
2*s.* 6*d.* each on 500,000 passengers	62,500
2*s.* 6*d.* per ton on 450,000 tons of merchandise	56,250
2*s.* 0*d.* per ton on 1,240,000 tons of coal for the use of Liverpool and Manchester, the price of that article having been reduced to that extent by the opening of the railroad	124,000
	£242,750

In addition to this saving, it is fair to reckon the gains, beyond the ordinary profits of stock, yielded to the proprietors of the undertaking. The gain upon other and longer lines will be greater in respect of passengers, although it may not generally prove equal to what is here stated with reference to merchandise; but it cannot fail to be every way of immense importance, and to add most materially, in the course of years, to the available resources of the country.

There are other modes and particulars in which railroads will prove themselves of benefit, but which are too numerous and too obvious to render their more particular notice in these pages either necessary or desirable.

For some time after the adoption of railway travelling, a very exaggerated notion was entertained by the public in regard to the personal danger necessarily attendant upon it. It is now seen that such danger is exceedingly small. In the official Report of the Railway Commissioners for 1849, the following comparative statement is given, from which it appears that the proportion of the number killed to those conveyed was, in 1848, 1 in 286,934, and in 1849, 1 in 316,047; while the proportion of persons receiving injury short of death was, in 1848, 1 in 264,661, and in 1849, 1 in 341,398. These proportions embrace the whole number of casualties, however arising; but if we take into the account only those cases which resulted from causes beyond the control of the sufferers, we shall find that in 1848 the killed were 1 in 2,520,034, and the injured 1 in 362,255; and that in 1849 the killed were no more than 1 in 3,192,077, and the injured 1 in 665,016. Limiting the calculation to the cases of passengers, the proportion killed from causes beyond their own control was, in 1848, 1 in 6,440,087, and in 1849, 1 in 12,768,308; while the proportion injured was, in 1848, 1 in 452,818, and in 1849, 1 in 760,018.

Comparative Statement, showing the Number and Description of Persons Killed and Injured on all the Railways open for Traffic in the United Kingdom during the Years 1848 *and* 1849, *together with the Number of Passengers conveyed, and the Length of Railway open during the same Periods.*

DESCRIPTION OF PERSONS.	Year ending 31st Dec., 1848.		Year ending 31st Dec., 1849.	
	Killed.	Injured.	Killed.	Injured.
Passengers killed and injured from causes beyond their own control	9	128	5	84
Passengers killed and injured owing to their own misconduct or want of caution	12	7	18	12
Total passengers killed and injured	21	135	23	96
Servants of companies or of contractors killed and injured from causes beyond their own control	13	32	14	12
Servants of companies or of contractors killed and injured owing to their own misconduct or want of caution	125	42	113	67
Trespassers and other persons, neither passengers nor servants, killed and injured by improperly crossing or standing on the railway	41	10	48	11
One person run over and killed at a crossing through misconduct of an engine-driver	1	..	..	..
A child killed, and another injured, in consequence of an engine getting off the rails, and running into an adjoining house	..	..	1	1
Suicide	1	..	3	..
Total	202	219	202	187
Number of passengers conveyed during the same periods	57,960,784		63,841,539	

The *laissez faire* system, which is pursued in this country to such an extent that it has become an axiom with the Government to undertake nothing and to interfere with nothing which can be accomplished by individual enterprise, or by the associated means of private parties, has been pregnant with great loss and inconvenience to the country in carrying forward the railway system. Perhaps there never was an occasion in which the Government could with equal propriety have interfered to reconcile the conflicting interests involved, and to prevent public injury arising from the false steps so likely to be made at first in bringing about a total revolution in the internal communications of the country. It is not meant by these remarks to infer that Government should have taken into its own hands the construction of all or any of the railroads called for by the wants of the community; but only to suggest the propriety and advantage that must have resulted from a preliminary inquiry, made by competent and uninterested professional men, with a view to ascertain the comparative advantages and facilities offered by different lines for the accomplishment of the object in view. If this course had been adopted before any of the numerous projects were brought forward for the construction of lines of railway between all imaginable places, and if it had been laid down as a rule by the

legislature that no such projected line could be sanctioned or even entertained by Parliament which was not in accordance with the reports and recommendations of the Government engineers, the saving of money would have been immense. The expensive contests between rival companies, in which large capitals have been so needlessly sunk, would then have been wholly avoided; and it might further have followed from this cause, that a kind of public sanction having been given to particular lines and localities, much of that personal opposition which has thrown difficulties in the way of works of great and acknowledged utility would never have been brought forward. The Parliamentary contests here alluded to, have, in truth, been between private individuals, and the victory has often remained with that one of the contending parties who could interest the greatest number of legislators: whereas, if the lines had been selected as the best that could be chosen, and sanctioned by men of professional skill and character, the legislature could never have listened to the pretensions of parties who, through the use of family or personal influence, have in too many cases set up a show of opposition in order to extort exorbitant sums under the name of compensation. The published Reports of some of the Railway Companies have put us in possession of the enormous sums which have been spent directly in these parliamentary contests, and it might be considered a sufficient justification of the remarks here made, to point to the following figures. These, however, form only a part of the expenditure incurred in overcoming, or, to speak more correctly, in buying off opposition, and which, as it enhances the cost of the undertaking, must be taken back from the public by the proprietors of the roads in the form of excessive fares and tolls.

Statement of Parliamentary Expenses incurred in obtaining Acts of Incorporation for the following undertakings:—

	£.		£.
Birmingham and Gloucester . .	22,618	London and South-Western . .	41,467
Bristol and Gloucester	25,589	Manchester and Leeds	49,166
„ Exeter	18,592	Midland Counties	28,776
Eastern Counties	39,171	North Midland	41,349
Great Western	89,197	Northern and Eastern	74,166
„ North of England . . .	20,526	Sheffield, Ashton-under-Lyne, and	
Grand Junction	22,757	Manchester	31,473
Glasgow, Paisley, and Greenock .	23,481	South-Eastern	82,292
London and Birmingham . . .	72,868		

In some cases the sums here given contain the expenses of surveying and other disbursements, which necessarily precede the obtaining of the Act of Incorporation. On the other hand, they exhibit only the costs defrayed by the proprietors of the railway to the exclusion of the expenses incurred by the different parties by whom the applications were opposed in Parliament. It is understood that the most glaring of the above cases is completely eclipsed by the charges attending the contests

of the various lines projected to Brighton. No statement of those expenses has hitherto been published.

The plan above alluded to was taken up as regards Ireland, and, on the motion of the Marquess of Lansdowne, an Address was presented to the Crown by the House of Lords, in compliance with which, Commissioners were nominated in October, 1836, to consider, "*first*, as to a general system for Railways in Ireland, in such manner either by causing surveys to be made of the leading lines, or otherwise, as may best serve to guide the legislature in the consideration of the projects that may be brought before it. *Secondly*, as to the best mode of directing the development of the means of intercourse to the channels whereby the greatest advantage may be obtained by the smallest outlay; taking into consideration not only the existing means which the country presents, but those which may be anticipated from the resources which may in future be developed. *Thirdly*, to inquire as to the port or ports on the west or south coast, whence the navigation to America may be best carried on by steam or sailing vessels; and to investigate particularly the facilities for the construction of lines of railroad across Ireland to such port or ports, in connexion with the greatest possible collateral benefits to internal communication. And, *fourthly*, to inquire into all such matters as may appear essential to the useful prosecution and result of the investigations.

A preliminary Report was made by the Commissioners, in the month of March following their appointment, and laid before Parliament, in which report promise was given to present, as early as possible, the full result of their investigations, accompanied by statistical information of the most interesting nature, which would bring to the knowledge of the public various circumstances connected with the condition and prospects of Ireland, as to which no sources of inquiry have previously been opened.

The Report thus promised was presented to Parliament in 1838, and fully accomplished the promise of its authors. It was at once acknowledged to be one of the most valuable statistical documents ever produced on the subject of Ireland, and has since been continually used as a great storehouse of facts connected with that island, not only as regards its wants and capabilities for the development of the railway system, but also with respect to its general resources, and the degree in which these had been made available. Various circumstances combined to prevent the specific recommendations of the Commissioners from being adopted by the Government, and the long season of commercial difficulty which followed the presentation of the Report equally prevented the employment of private enterprise to that end. When, however, that season of gloom had disappeared, the Report of the Irish Railway Commissioners became a text-book in the hands of speculators, and a guide

in various ways to the Government and to the Committees of the Houses of Parliament to which railway projects in Ireland have from time to time been referred.

If the adoption of railway travelling has been the means of depriving of employment many persons who were previously engaged on the various turnpike roads of the kingdom, it has, on the other hand, created a considerable amount of work upon the several lines. The following figures, taken from a Parliamentary Return, show the number of persons who were, in various capacities, employed by railway companies on the 30th June, 1849 :—

Secretaries or managers	156	Guards or breaksmen	1,631
Treasurers	32	Artificers	10,809
Engineers	107	Switchmen	1,540
Superintendents	314	Gate-keepers	1,361
Storekeepers	120	Policemen or watchmen	1,508
Accountants or cashiers	138	Porters or Messengers	8,238
Inspectors or timekeepers	490	Plate-layers	5,508
Station-masters	1,300	Labourers	14,029
Draughtsmen	103	Miscellaneous employment	144
Clerks	4,021		
Foremen	709	Total	55,968
Engine-drivers	1,839		
Assistant drivers or firemen	1,871		

At the same date, there were employed upon lines of railway under construction 103,816 persons, of whom 16,144 were artificers, and 84,473 were labourers and foremen. The remaining 3,199 persons consisted of policemen, porters, clerks, draughtsmen, inspectors, accountants, secretaries, &c. A large part of the labourers engaged in the construction of railways, would have to seek other employments as the lines should be completed, but on the other hand, a greater number of educated persons would then be called into action for working the railways.

The railways ystem has been successfully introduced into Belgium, in which country various lines, extending to nearly 400 English miles, are now in full operation. The nature of the country is most favourable for the construction of such works, requiring for the most part neither tunnelling, nor deep cutting, nor costly embankments.

The greater part of the Belgian railways were constructed by the Belgian Government, and are worked for the benefit of the state as follows :—

	Length in English Miles.	Cost in English Money.
		£.
Line of the North—Brussels to Antwerp	27¼	305,042
„ West—Malines to Ostend	76¼	618,728
„ East—Malines to Prussian frontier	82¾	1,691,577
„ South—Brussels to French frontier	51	613,585
Ghent to French frontier and Tournay	48	349,422
Braine-le-Comte to Namur	41	536,000
	326¼	£4,114,354

The average cost per mile of the whole is 12,611*l.*, but this does not

include the buildings for stations, nor the cost of locomotive engines. By including these items the total outlay of the Government when the whole of the lines were opened for traffic, amounted to 5,373,200*l.* or 16,470*l.* per English mile.

The funds for the construction of these works were provided by loans, the interest upon which, amounting to 244,521*l.* per annum, has not hitherto been fully met by the profits of the lines. The progress of railway travelling, and of the gross and net receipts upon the various lines since the first section was opened for traffic, and up to the close of 1847, have been as follows :—

Years.	Passengers.	Gross Receipts.	Net Receipts.	Years.	Passengers.	Gross Receipts.	Net Receipts.
		£.	£.			£.	£.
1835	421,439	10,760	4,009	1842	2,724,104	298,462	110,449
1836	871,307	33,005	15,760	1843	3,085,349	359,777	140,713
1837	1,382,577	56,680	9,085	1844	3,381,529	449,219	218,602
1838	2,238,303	123,913	13,967	1845	3,470,678	496,128	243,265
1839	1,952,731	169,993	46,834	1846	3,700,111	546,236	256,405
1840	2,199,319	213,406	83,226	1847	3,746,390	593,445	220,690
1841	2,639,744	249,053	74,900				

It is more than probable that if the Belgian railways had been constructed by means of private capitalists, the rate of fares would have been much higher than those adopted by the Government, which has been contented for a time to draw its profit indirectly from the general impetus which so greatly improved a system of transport could not fail to give to the business of the country, rather than from an immediately remunerative rate of fares. The loss, by reason of the excess of the interest upon the railway loans over the net receipts of the lines, has been only nominal, since the nation at large, which has made good the deficiency, has saved it in the diminished charges of conveyance which in one shape or other has necessarily proved an advantage to every individual in the kingdom; and even with respect to the railways themselves, if viewed as a money speculation, it is probable that the surplus revenue which they will in future yield, will come to be of serious advantage to the state, and that the more speedily because of the lowness of the fares and charges, which has stimulated the people to embrace the benefits of rapid transit.

It should be stated that the net receipts as given in the foregoing table do not fully exhibit the profits of the lines, because the Belgian Government makes no allowance for the conveyance of mails, nor for the passing of troops. The fares charged upon the Belgian railways do not exceed one penny per English mile for passengers in first class carriages, the fares in the inferior classes being proportionately low.

The line between Brussels and Malines has been opened for traffic since the 7th of May, 1835, and in the first year thereafter 563,210

persons had been conveyed upon it. During the first month that followed the opening of the 14 miles from Malines to Antwerp, there were conveyed upon the whole line 101,479 passengers. The railroads in Belgium having been constructed at a cost comparatively inconsiderable, the fares are fixed on the most moderate scale; the whole journey from Brussels to Antwerp, which is performed in from 1 hour 25 min. to 1 hour 45 min., costs no more to the traveller than one franc, or tenpence English money. Before the opening of the railway the number of passengers between Brussels and Antwerp is said not to have exceeded on the average 80,000 yearly, at the cost to each person of 2*s.* 6*d.* to 4*s.*

The first construction of railroads in the United States is of still more recent date than the canals of that country. The earliest (the Quincy Railroad, in Massachusetts, three miles in length) was undertaken in 1825, and was intended for the conveyance of heavy materials only, as was the case with the early railroads in this country. The success of the Liverpool and Manchester line, as a means of rapid travelling, has stimulated the energies of the American citizens in this direction to an extraordinary degree, and already nearly 200 joint-stock associations have been incorporated for the construction of railroads in almost every part of the Union. Only a part of the works thus contemplated have hitherto been completed, but many others are in progress. The extent of the lines completed in each State in 1849, was as under:—

STATES.	No. of Railways.	Extent in Miles.	Sums Expended in their Construction.	STATES.	No. of Railways.	Extent in Miles.	Sums Expended in their Construction.
			Dollars.				Dollars.
Maine . . .	2	64	1,200,000	South Carolina.	3	241	5,493,678
New Hampshire	5	212	7,774,502	Georgia . . .	5	605	6,550,308
Massachusetts .	31	1,056	46,305,878	Florida . . .	3	54	230,000
Rhode Island .	1	48	2,600,000	Alabama . .	2	113	950 000
Connecticut . .	3	147	2,884,123	Mississippi . .	4	276	768,000
New York . .	22	840	27,355,144	Kentucky . .	1	29	450,000
Pennsylvania .	35	974	23,745,290	Ohio	4	133	4,354,391
New Jersey . .	8	206	6,780,000	Indiana . . .	1	86	212,000
Delaware . . .	1	17	600,000	Michigan . .	5	354	6,790,928
Maryland. . .	5	360	12,473,000				
Virginia . . .	9	371	6,364,506				
North Carolina .	2	254	3,400,000	Total . .	152	6,440	167,731,748*

So recently as 1840, the aggregate length of the railways open for traffic in the United States was only 3332 miles, and the money spent in their construction was 96,529,940 dollars, or 20,110,404*l.* In addition to the above 152 lines, there were, in 1849, numerous other railways under construction in the various states. In those of New England alone there were then more than 20 lines in progress, which when com-

* Equal to £34,944,114 sterling.

pleted will add more than 800 miles to the railways of the United States.

The average cost per mile of the above works has been 26,045 dollars, or 5426*l.*

The New York and Erie Railroad, the greatest work of the kind that was ever undertaken, was begun in November, 1835. Its entire length from the city of New York to Portland and Dunkirk, on Lake Erie, will be 506 miles. The capital of the company is ten millions of dollars, or about 4120*l.* per mile. The South Carolina Railroad from Charleston to Hamburg, a distance of 136 miles, is a successful undertaking, which was begun in 1830, and opened for use throughout in 1833. It is built on piles, and the difference of level is overcome somewhat in the manner proposed in this country by Mr. Palmer, *i. e.*, by means of the varying lengths of the posts or piles employed. Since the first construction of this work it has been judged advisable to fill in the piles with earth, converting them into an embankment, and thus the cost of the line has been much enhanced. Even with this additional expense, however, the whole cost has been only 1,336,615 dollars, or 1312*l.* 4*s.* per mile, including locomotive engines and carriages.

A still greater work than either of the foregoing—the Charleston and Cincinnati Railroad—has been projected, with the view of opening a communication between the valleys of the Ohio and the Mississippi and the Atlantic Ocean. The country between the two cities has been explored in various directions, and surveys are now in progress for determining which line offers the least difficulty with the greatest prospective advantages. It is not necessary to offer any further description of these undertakings. Enough has been said to show that, however rapidly we may proceed in the execution of such works in this country, we are pretty sure to be rivalled in that respect by the enterprising and indefatigable citizens of the United States.

The extent of railways in English miles, open for traffic in the different states of Germany, in October, 1850, was as follows:—

	Miles.		Miles.
Prussia	1820	Anhalt Cöthen	10
Austria	920	Brunswick	60
Saxony	260	Lauenburg	8
Bavaria	354	Mecklenburg	112
Hanover	250	Hesse Darmstadt	52
Hesse Cassel	170	Nassau	29
Baden	170		
Wurtemburg	124	Total	4435
Holstein	96		

CHAPTER VI.

COASTING TRADE.

No Records of Coasting Trade earlier than 1824—Tonnage employed, 1824 to 1849—Proportion employed in conveying Coals to London—Influence of Corn Trade in determining Fluctuations in the employment of Coasting Vessels.

THE Custom-house does not contain any records from which the amount of our coasting trade in general can be ascertained for any period earlier than 1824. From that year to 1849 the tonnage of coasting vessels that entered inwards at ports in Great Britain from other ports in Great Britain, including their repeated voyages, has been as follows:—

Years.	Tons.	Years.	Tons.	Years.	Tons.
1824	8,552,177	1833	8,358,454	1842	9,636,563
1825	8,651,783	1834	8,774,326	1843	9,566,275
1826	8,870,582	1835	9,054,769	1844	9,615,434
1827	7,448,252	1836	9,157,100	1845	10,974,831
1828	7,987,604	1837	9,207,266	1846	10,569,279
1829	8,027,475	1838	9,226,777	1847	10,923,186
1830	8,240,654	1839	9,433,511	1848	11,053,563
1831	8,255,630	1840	9,615,661	1849	10,489,414
1832	8,393,068	1841	9,676,293		

It has been already shown (section 2, chap. vi.) how large an amount of tonnage is engaged in the conveyance of coals coastwise between different parts of the kingdom. The arrivals in the port of London alone in the nineteen years from 1831 to 1849, were—

Years.	Ships.	Tons of Coals.	Years.	Ships.	Tons of Coals.
1831	7,006	2,053,673	1841	10,316	2,909,562
1832	7,528	2,149,820	1842	9,691	2,754,719
1833	7,077	2,014,804	1843	9,593	2,663,114
1834	7,404	2,080,547	1844	9,466	2,563,166
1835	7,958	2,299,816	1845	11,987	3,463,630
1836	8,162	2,398,352	1846	10,488	2,975,627
1837	8,720	2,629,321	1847	11,911	3,302,425
1838	9,003	2,582,770	1848	12,267	3,479,189
1839	9,340	2,638,256	1849	11,798	3,380,786
1840	9,132	2,589,087			

It is to be regretted that the statements of our coasting trade during earlier years cannot be procured, as it is evident that this is the only branch of home traffic capable of being measured by Custom-house records, as to its amount and progress. The falling off, exhibited above, in the coasting tonnage of 1827, and some subsequent years, as compared with the first three years of the series, is very remarkable. The only circumstance which seems to offer any explanation of the diminution, is

the fact of the importations of foreign grain having been on the average of the five years from 1827 to 1831, nearly double the average importations in the three years from 1824 to 1826. The foreign grain being brought principally to the markets where it was required for consumption, the services of coasting traders would be so far not required. During the same time, and subsequently to 1831, the importations of grain into Great Britain from Ireland have also been very considerably greater than they were up to 1827, and this, while it may also partly account for the diminution in the English coasting trade, will explain in some degree the increase that occurred about the same time in the tonnage of vessels from Ireland, as shown in the following chapter: the increased average size of the vessels since 1825 is owing to the partial employment of steam-vessels.

The peculiar nature of the laws which have regulated our trade in foreign corn has occasioned accounts to be kept of the quantities as well as the prices of grain sold in certain specified markets throughout the kingdom. Some changes have, at different times, been made, as regards the particular markets in which these registers must be kept; in some it has been abandoned, and others have been made to supply their places. A great addition to their number was made in 1842. Among these places there are 128 where registers have been kept continuously since 1825, and from these it appears that the quantity of home-grown wheat sold, has, during that time, very much increased. The returns of 1825 show that the sales in these markets amounted to 1,993,564 quarters, and in 1834 had advanced to 2,816,841, showing an increase in ten years of 41 per cent. The difference of price obtainable in these two years, may have had some effect upon the quantities brought to market, and the difference in the number of mouths to be fed must also be taken into the account; but these causes together do not seem sufficient to account for such an increase as that which actually occurred, and some part of it is, no doubt, owing to the improved condition of the people, which enables them in a greater degree than formerly to command the necessaries of life. The changes subsequently made in the list of markets making these returns render it impossible to continue the comparison to the present time.

CHAPTER VII.

TRADE BETWEEN GREAT BRITAIN AND IRELAND.

Value of Goods passing between Great Britain and Ireland in different years between 1801 and 1825—No later Official Account kept—Trade by Steam-Vessels between Ireland and Liverpool—Value of Agricultural Produce so conveyed, 1831 and 1832—Number and Value of Live Stock imported into Great Britain, 1801–1825, and 1846–9—Imported into Liverpool and Bristol, 1831, 1832, and 1837—Eggs imported—Effect upon the Markets in Ireland—Grain, 1815 to 1849—Vessels employed in Trade between Great Britain and Ireland, 1801–1849.

THE value of produce and merchandise that have been the objects of trade between Great Britain and Ireland, in various years since the Union, has been stated in papers laid before Parliament, as follows:—

Years.	Imports into Ireland from Great Britain.	Exports from Ireland to Great Britain.
	£.	£.
1801	3,270,350	3,537,725
1805	4,067,717	4,288,167
1809	5,316,557	4,588,305
1813	6,746,353	5,410,326
1817	4,722,766	5,696,613
1821	5,338,838	7,117,452
1825	7,048,936	8,531,355

No account of this trade can be given for any year subsequent to 1825, the commercial intercourse between Great Britain and Ireland having at the end of that year been assimilated by law to the coasting traffic carried on between the different ports of England; and with the exception of the single article of grain (as to which it was considered desirable by the legislature to continue the record), we have now no official register of the quantity or value of goods or produce received from or sent to Ireland. That this traffic has greatly increased in all its branches there can be no doubt; and this increase may partly be attributed to the abolition of the restrictions that existed up to 1825, but probably still more to the employment of steam-vessels upon an extensive scale. To show the extent to which the traffic has been carried by this means, a statement was furnished to a Committee of the House of Commons by the manager of a company trading with steam-vessels between Ireland and Liverpool, of the quantity and value of agricultural produce imported into that one port from Ireland in 1831 and

1832. From this statement it appears that the annual value of the trade was about 4½ millions sterling, which was in great part made up of articles that could not have been so profitably brought to England by any previously existing mode of conveyance—such as live cattle, horses, sheep, and pigs; the value of which amounted, in 1831, to 1,760,000*l.*, and in 1832 to 1,430,000*l.* During the same two years the value of Irish agricultural produce brought to the port of Bristol averaged about one million sterling. The whole number of cattle, horses, sheep, and pigs, sent from Ireland to the various ports of England and Scotland, in different years, from 1801 to 1825, was as under:—

	1801	1805	1809	1813	1817	1821	1825
Cattle . .	31,543	21,862	17,917	48,973	45,301	26,725	63,519
Horses .	669	4,114	3,264	3,904	848	2,392	3,130
Sheep . .	2,879	10,938	7,572	7,508	29,460	25,310	72,161
Pigs . .	1,968	6,383	4,712	14,521	24,193	104,501	65,919

A return, showing the number of live animals shipped to Great Britain from Ireland in each of the four years from 1846 to 1849, has been presented to Parliament by the authorities of the Custom-house, who collected the same at the several ports of shipment from the best sources that were open to them. The errors, if any, in this return, will all be errors of omission:—

	1846	1847	1848	1849
Oxen, Cows, and Bulls . .	186,483	189,960	196,042	201,811
Calves	6,363	9,992	7,086	9,831
Sheep and Lambs . . .	259,257	324,179	255,682	241,061
Swine	480,827	106,407	110,787	68,053

The great falling off apparent in the number of swine is, no doubt, attributable to the failure of the potato crop and its consequences.

The numbers sent to Liverpool and Bristol alone, in 1831 and 1832, were:—

	Liverpool.		Bristol.	
	1831	1832	1831	1832
Cattle	91,911	71,318	6,078	4,077
Horses and Mules . .	539	708	159	190
Sheep	160,487	98,337	11,640	4,446
Pigs	156,001	149,090	84,107	85,619

The statement above mentioned of the imports into Liverpool occasioned considerable surprise at the time it was made, from the greatness of its amount; but it would appear that this branch of trade has since

gone on increasing in a most extraordinary degree, as will be seen from the following account of the number and value of live animals brought from Ireland to Liverpool in the year 1837 :—

			£.
84,710	Black Cattle, at 16*l.* each	. . . .	1,365,360
316	Calves	45*s.* „	711
225,050	Sheep	40*s.* „	450,100
24,669	Lambs	18*s.* „	22,202
595,422	Pigs	50*s.* „	1,488,555
3,414	Horses	20*l.* „	68,280
319	Mules	8*l.* „	2,552
	Total Value	. . .	£3,397,760

The average value here assigned to the several kinds of animals is given on the authority of an intelligent gentleman resident at Liverpool, and who is practically acquainted with the trade.

The value in money of one seemingly unimportant article—eggs, taken in the course of the year to the above two ports from Ireland, amounts to at least 100,000*l.* The progress of this trade affords a curious illustration of the advantage of commercial facilities in stimulating production and equalising prices. Before the establishment of steam-vessels, the market at Cork was most irregularly supplied with eggs from the surrounding district; at certain seasons they were exceedingly abundant and cheap, but these seasons were sure to be followed by periods of scarcity and high prices, and at times it is said to have been difficult to purchase eggs at any price in the market. At the first opening of the improved channel for conveyance to England, the residents at Cork had to complain of the constant high price of this and other articles of farm produce; but as a more extensive market was now permanently open to them, the farmers gave their attention to the rearing and keeping of poultry, and at the present time eggs are procurable at all seasons in the market at Cork, not, it is true, at the extremely low rate at which they could formerly be sometimes bought, but still at much less than the average price of the year. A like result has followed the introduction of this great improvement in regard to the supply and cost of various other articles of produce.

It has been mentioned that when, in order to save the yearly salaries of one or two junior clerks, it was determined to cease keeping any official record of the commercial intercourse between Great Britain and Ireland, an exception was made as regards grain and flour, that trade being of great personal interest to our legislators. The following statement exhibits the quantities of those kinds of produce sent to us from Ireland in each year from 1815 to 1849 :—

Statement of the Quantity of various kinds of Grain and Meal brought into Great Britain from Ireland, in each Year from 1815 *to* 1849.

Years.	Wheat and Wheat Flour.	Barley and Barley Meal.	Rye.	Oats and Oatmeal.	Indian Corn.	Beans.	Peas.	Total of Grain and Meal.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.		Qrs.
1815	189,544	27,108	207	597,537	..	6,796		821,192
1816	121,631	62,254	43	683,714	..	6,223		873,865
1817	59,025	26,766	614	611,117	..	2,287		699,809
1818	108,230	25,387	4	1,069,385	..	4,845		1,207,851
1819	154,031	20,311	2	789,613	..	3,904		967,861
1820	404,747	87,095	134	916,250	1	8,893		1,417,120
1821	569,700	82,884	550	1,162,249	..	7,433		1,822,816
1822	463,004	22,532	353	569,237	..	7,963		1,063,089
1823	400,068	19,274	198	1,102,487	..	6,126		1,528,153
1824	356,408	45,872	112	1,225,085	..	6,547		1,634,024
1825	396,018	165,082	220	1,629,856	..	12,786		2,203,962
1826	314,851	64,885	77	1,303,734	..	7,190	1,452	1,692,189
1827	405,255	67,791	256	1,343,267	1,765	10,037	1,372	1,829,743
1828	652,584	84,204	1,424	2,075,631	280	7,068	4,944	2,826,135
1829	519,493	97,140	568	1,673,628	39	10,444	4,503	2,305,806
1830	529,717	189,745	414	1,471,252	28	19,053	2,520	2,212,729
1831	557,520	185,409	515	1,655,934	563	15,039	4,663	2,419,643
1832	572,586	123,068	294	1,890,321	3,037	14,512	1,916	2,605,734
1833	844,201	107,519	167	1,762,519	117	19,103	2,645	2,736,281
1834	779,504	217,568	982	1,713,971	75	18,770	2,176	2,733,046
1835	661,773	156,176	614	1,813,101	..	24,234	3,447	2,659,345
1836	598,756	182,867	483	2,126,693	Malt.	17,603	2,920	2,929,322
1837	534,465	187,473	1,016	2,274,675	4,174	25,630	2,860	3,030,293
1838	542,583	156,467	628	2,742,807	5,001	21,584	5,232	3,474,302
1839	258,331	61,675	2,331	1,904,933	2,552	11,535	1,484	2,242,841
1840	174,440	95,954	122	2,037,836	3,456	14,753	1,403	2,327,964
1841	218,708	75,568	172	2,539,380	4,935	15,907	855	2,855,525
1842	201,998	50,286	76	2,261,434	3,046	19,931	1,550	2,538,221
1843	413,466	110,449	371	2,648,033	8,643	24,329	1,192	3,206,483
1844	440,153	90,655	264	2,242,300	8,153	18,580	1,091	2,801,206
1845	779,113	93,095	165	2,353,985	11,154	12,745	1,644	3,251,901
1846	393,462	92,854	..	1,311,591	..	14,668	2,227	1,814,802
1847	184,222	47,577	1,498	703,462	..	22,361	4,659	963,779
1848	304,872	80,076	15	1,546,568	..	12,314	2,572	1,946,417
1849	233,445	44,678	419	1,122,067	..	22,420	3,368	1,426,337

In the absence of all further Custom-house records, the following table of the number and tonnage of vessels in which the trading intercourse with Ireland has been carried on during each year of the present century, will afford a pretty correct view of its amount and progress:—

Statement of the Number and Tonnage of Vessels, including their repeated Voyages, that entered the Ports of Great Britain from Ireland, and that left the Ports of Great Britain for Ireland, with Cargoes, in each Year from 1801 *to* 1849.

Years.	Inwards.		Outwards.		Years.	Inwards.		Outwards.	
	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.
1801	5,360	456,026	6,816	582,033	1812	10,812	925,736	10,053	867,342
1802	5,820	461,328	5,540	449,350	1813	8,569	718,851	9,096	773,286
1803	5,796	504,884	5,656	502,279	1814	7,562	613,898	8,719	715,171
1804	5,643	490,455	6,148	557,279	1815	8,462	680,333	9,602	776,313
1805	6,306	566,790	6,875	598,720	1816	7,575	621,273	8,861	721,772
1806	6,907	578,297	7,032	586,728	1817	9,186	770,547	9,530	762,770
1807	No returns can be procured for this year.				1818	7,969	644,896	8,863	763,622
1808	8,477	768,264	7,560	696,473	1819	8,575	699,885	9,751	795,495
1809	7,041	600,898	7,011	580,587	1820	9,229	783,750	8,451	734,716
1810	8,403	713,087	9,121	763,488	1821	9,440	819,648	9,266	801,007
1811	9,014	789,097	8,216	703,738	1822	9,562	832,927	9,935	828,114

Statement of the Number and Tonnage of Vessels, including their repeated Voyages, that entered the Ports of Great Britain from Ireland, and that left the Ports of Great Britain for Ireland, with Cargoes, in each Year from 1801 *to* 1849—continued.

Years.	Inwards.		Outwards.		Years.	Inwards.		Outwards.	
	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.
1823	9,382	786,637	9,937	814,383	1837	10,299	1,202,104	16,347	1,585,624
1824	7,534	615,396	10,989	905,449	1838	10,312	1,264,975	15,908	1,556,216
1825	8,922	741,182	10,981	922,355	1839	9,221	1,176,893	17,335	1,708,243
1826	6,388	632,972	11,599	1,055,870	1840	9,423	1,150,395	17,369	1,677,264
1827	7,411	737,752	11,083	1,044,093	1841	10,005	1,200,457	16,520	1,628,358
1828	8,790	923,505	12,339	1,167,280	1842	9,060	1,148,907	17,453	1,682,828
1829	8,922	906,158	13,478	1,286,168	1843	10,104	1,255,901	16,760	1,670,574
1830	8,455	880,965	13,144	1,245,647	1844	10,147	1,349,273	16,948	1,817,756
1831	9,029	921,128	13,158	1,246,742	1845	11,481	1,511,023	19,785	2,111,481
1832	9,705	1,026,613	14,694	1,417,533	1846	9,133	1,416,130	19,624	2,211,696
1833	9,476	1,041,882	14,227	1,378,556	1847	8,085	1,296,610	17,935	2,047,387
1834	10,026	1,100,389	14,560	1,440,617	1848	9,109	1,470,309	18,941	2,153,054
1835	10,116	1,138,147	14,608	1,473,255	1849	8,607	1,478,059	18,000	2,159,954
1836	9,820	1,179,062	14,725	1,490,788					

If we compare the amount of the tonnage employed in 1801, with that of 1849, we shall find that it bears the proportion of 100 to 350, showing an increase of 250 per cent. It will further be seen, that this increase has been much more rapid during the years in which steam-vessels have been so much brought into use, than it was in the preceding years of the series. Up to 1826 the increase from 1801 was no more than 62 per cent., showing a mean annual increase of $2\frac{2}{3}$ per cent., whereas in the 23 years following 1826, the increase from 1801 has been 188 per cent., or 8 per cent. annually.

The apparent discrepancy since 1825 between the tonnage inwards and outwards, as stated in the foregoing account, arises thus:—When, in 1826, the trade between Great Britain and Ireland was first placed on the footing of a coasting trade, it was considered that to give returns of the duties inwards and clearances outwards, both in Great Britain and Ireland, would present an exaggerated view of the intercourse between the islands, and the accounts have therefore been made to show only the clearances from Great Britain to Ireland, and the arrivals in Great Britain from Ireland. The great difference between the clearances and entries arises from the fact, that the shipments to Ireland are more bulky than the receipts from Ireland, causing many ships to return to Great Britain in ballast, of which no account is taken, while others, after discharging in Ireland, proceed thence on distant and foreign voyages.

CHAPTER VIII.

WEIGHTS AND MEASURES.

Necessity of establishing Legal Standards—Inconvenience of Local and Customary Weights and Measures—Parliamentary Investigations—Acts of 1824—of 1834 and of 1835, for establishing Uniformity of Weights and Measures throughout the Kingdom.

IN every country where advances have been made towards civilization, and where the mode of traffic among the people has gone one step beyond the rudest system of barter, it has been found necessary for the Government to interfere, in order to establish standards whereby to ascertain the quantities by weight or measure of things which form the objects of purchase and sale. This interference is necessary in order to prevent frauds and endless disputes; and when a system of weights and measures has been adopted, which in this respect introduces certainty into the dealings of traders and consumers, a great benefit will have been conferred upon both classes. It has commonly happened in various countries, from the subject not having been well understood, that the settlement of this important point has been delegated by the general government to various local bodies in different parts of the same country, and by this means a want of uniformity has been produced, which is at least very inconvenient to the community at large. The introduction of such a state of things is the more to be regretted, because of the great pertinacity with which people adhere to customs of this kind, when once they have been suffered to take root. At the very beginning of the French Revolution, the National Convention of France passed a decree, with the object of establishing entire uniformity of weights and measures in that country. This decree was recommended to the cordial acceptance of the people as one of the greatest benefits which the legislature could bestow upon the citizens, and at the same time any infringement of the law was declared to be highly penal; half a century has since elapsed, and although during the whole of that time the Government has in every proper way sought to give a practical effect to the new system, which is further recommended by the scientific character and the simplicity of its principles and arrangements, yet to this hour weights and measures established by law have not been adopted in the largest part of French provincial towns, where in all dealings between shop-

keepers and their customers, the old modes of weighing and measuring are still pursued.

The great inconvenience attending such a want of uniformity in this country had long been acknowledged, and at various times efforts had been made for remedying the evil. A Committee of the House of Commons was appointed in 1790 to investigate the subject, and to suggest a remedy, but no practical result followed from the inquiry. In seasons of war the importance of such questions is generally forgotten amidst more pressing calls upon the attention of the Government and the public.

Accordingly nothing further was attempted on this head until 1814, in which year another Committee of the House of Commons was appointed; but, if we except the eliciting of opinions upon the subject from eminent men—such as Dr. Wollaston and Professor Playfair—this Committee also was unproductive of good. In 1818 a Commission, consisting of Sir Joseph Banks, Sir George Clerk, Mr. Davies Gilbert, Dr. Wollaston, Dr. Young, and Captain Kater, was appointed by Government to devise some practical remedy for the evil. The consequent labours of these eminent men cannot be said to have been useless, because their investigations led to scientific discoveries which simplified the question, and pointed out the means available for preserving or restoring accurate standards both of weight and measure. The investigations of the Commission did not, however, lead to any immediate legislative act; and it was not until four years had elapsed that a Bill to regulate weights and measures was introduced into the House of Commons by Sir George Clerk, one of the members of the Commission. This Bill did not pass. It was again introduced by the same gentleman in the following year (1823), when it passed the House of Commons, but was not carried through its stages in the Lords. A better fortune awaited the measure in 1824, when an Act for ascertaining and establishing Uniformity of Weights and Measures received the Royal Assent. By this Act, the old standards of weight and linear measure, that had been long in use in England, were adopted and made applicable to the whole kingdom, while the measures of capacity were changed and rendered uniform. The old standard *Wine* Gallon contained 231 cubic inches; the *Ale and Beer* Gallon, 282 cubic inches; the *Corn* Gallon, 268¼ cubic inches; and the *Scots Pint*, 103⅗ cubic inches. These measures, with all other local measures of every description, were abolished, and instead of them a measure called an *Imperial Gallon* was established. This gallon was declared to contain ten pounds avoirdupois weight of distilled water, weighed in air, at a temperature of 62 degrees of Fahrenheit's thermometer—the barometer being at 30 inches. The content of the Imperial Gallon, thus computed, is found to be 277·274 (rather more 277¼) cubic inches. A mode of verifying this measure, and also of verifying, by its means, both linear measure and weight, is

pointed out by establishing mutual relations between the three, thus:—The contents of the cube of the sixth part of the length of the pendulum vibrating seconds in the latitude of London, at the level of the sea, and in a vacuum (which has been made the element for establishing linear measure), is so very near the contents of the Imperial Standard Gallon, that the difference is only three-tenths of a cubic inch; the cube of the sixth part of the length of the pendulum containing 277·578, while the Imperial Gallon contains 277·274 cubic inches; and the tenth part of the weight of an imperial gallon of water, at a temperature exactly one-sixth part of the distance between the points of freezing and boiling, is an Imperial Standard Avoirdupois Pound. The standards of both weights and measures are thus rendered so far invariable in future, that they are found to be independent of all artificial measurements and graduations, and can be at once referred "to nature alone for their prototypes." This is assuredly a great improvement over the old system, which made a grain of corn, the human foot, and the distance to which a man can extend his arms—all things which are manifestly liable to considerable diversity—the elements whence to determine weight and measure.

This law, which came into operation on the 1st of January, 1826, failed, during the nine years of its existence, to produce a satisfactory degree of uniformity in practice throughout the kingdom: it proved, however, in a high degree useful, as it paved the way for the more perfect measures adopted in 1834 and 1835, under which we are now acting, and which could probably not have been enforced but for the preparation of the public mind which resulted from the previous step towards improvement. By the law now established, a very high degree of simplification has been attained. The units of weight and measure adopted in 1824 are continued, and their universal adoption through the kingdom is made imperative. Besides this, all modes of measuring which admitted of uncertainty are declared illegal. A bushel or gallon of some kinds of articles was formerly not merely the quantity which the measure would contain within it, but a superaddition of as much more as could be heaped upon it in the form of a cone. Other articles were measured without this cone—the first mode of proceeding being called heap-measure, and the second strike-measure, from the employment of a roller to remove or strike off all of the article measured which stood above the level of the rim of the measure. Strike-measure is now declared to be the only legal mode for determining the quantity of all descriptions of dry goods in measures of capacity. The uncertainty, and consequently the possible unfairness, of heaped measure, was demonstrated by the clerk of Covent Garden Market, who stated, in his evidence given before a Committee of the House of Commons, that he had employed two different persons to measure each a peck of nuts, and

that one of them put eleven, while the other could put only ten quarts in and on the measure. A mode of ascertaining quantity, which thus admitted of variations amounting to ten per cent., according to the skilfulness of the measurer, was one which called loudly for alteration, and any system which in this respect had left people at liberty to continue the old practice, would have been highly unsatisfactory.

All local or customary weights or measures are abolished throughout the kingdom, under heavy penalties. That previously uncertain quantity, a *Stone*, is now invariably 14 imperial pounds, eight of which form the hundredweight; and, with the exception of gold, silver, platina, diamonds, or other precious stones (for ascertaining the quantities of which Troy weight is still allowed), all articles which are weighed must now be sold by the imperial pound.

One imperfection has been allowed—inadvertently, perhaps—to creep into the new system. When heaped measure was used, it was seen to be necessary to prescribe by law the shape as well as the cubic contents of the measure used, because the size of the cone heaped above the level of the rim depended upon the area of its base. If two vessels were made having the same cubic contents, but one of which was more shallow than the other, the quantity heaped upon such shallower vessel would of course be greater than where a deeper but narrower vessel was used. It seems to have been considered that when this cone was no longer permitted to be added to the measure, the form became immaterial. This is found to be incorrect. Some articles, such as corn, are made to lie closer together when subjected to pressure, and for this reason a deep vessel will hold a larger quantity than one having the same cubic contents, but which is more shallow in form. It has been ascertained by experiments carefully conducted by Dr. Anderson, and given in evidence before a Committee of the House of Commons, "that wheat measured in a bushel-measure which was $11\frac{1}{2}$ inches deep, weighed 56 lbs. $6\frac{3}{4}$ oz.; and that the same wheat, measured under the same circumstances in a bushel $8\frac{1}{2}$ inches deep, weighed no more than 56 lbs. $0\frac{1}{4}$ oz., making a deficiency of rather more than one in 150—a loss of some moment where large quantities are delivered."

The use of any soft metal or alloy, such as lead and pewter, for making weights, is forbidden, because of the facility they would afford for falsification, and the loss to which they would be speedily subjected in use through abrasion.

CHAPTER IX.

FOREIGN COMMERCE.

Dependence of various Countries upon each other for Comforts and Conveniences—Peculiar Advantages of England for prosecuting Foreign Commerce—Effect of Wars and Commercial Systems upon Foreign Trade—Growing Importance of its Commerce to England, arising out of its increasing Population—Influence of extended Markets in preventing ruinous Fluctuations—Impossibility of long maintaining existing Corn Laws—Progress of Foreign and Colonial Trade, from 1801 to 1849—Course of Trade with various Countries—Opening of East India and China Trades—Discriminating Duties on Sugar—On Coffee—On Timber—Continental System—Return of Peace—Free-Trade Petition of London Merchants—Relaxation of Navigation Acts—Reciprocity Treaties—Registered Tonnage—Ships built—Ships Entered and Cleared 1801-1844.

THERE are but few countries so circumstanced with regard to their natural capabilities of soil and climate as to be independent of all other countries for the supply of many of those productions which have become necessary to the comfort, if indeed they be not indispensable requisites to the well-being, of their inhabitants. England is assuredly not one of those countries, and foreign commerce is to its inhabitants a thing of social, if not of physical, necessity. But for our traffic in foreign productions, even the home trade of England would be without a great part of the activity by which it is distinguished, because, as regards what is yielded by our own soil, each part of the kingdom is nearly independent of every other part. The South has no need to draw its supplies of grain from the North, nor does the West require to receive the cattle bred in the East. With respect to our minerals, a great part even of these are found in different and distant parts of the island; so that in almost every case that part of the produce of our industry which exceeds in each particular branch the wants of the population engaged for its supply must seek a market in other countries, and be there exchanged for such articles of convenience as Nature refuses to yield to us in sufficient cheapness or abundance from our own soil.

The geographical position and capabilities of England furnish her with advantages for the prosecution of this foreign commerce far greater than are possessed by any other country of equal extent. To these advantages we have added a spirit of industry, fostered by our free institutions, and a degree of commercial enterprise, beyond those of any

other people either ancient or modern, with, perhaps, the recent exception of the United States of America. But although the amount of our foreign trade is greater than that of any other country, it by no means follows that it is as great as it should be, or as it would long since have become, if left to its own free course. Considering all the natural and acquired advantages that we possess for this purpose, it should rather excite regret that our commerce is so small, than engender pride because it is so large. Requiring, as we do, so many of the productions of other climates, and capable as we are of commanding them by means of our own products and manufactures, which are objects of universal desire in almost every climate; to what can we attribute it, but to the evil consequences of wars and the still more baleful consequences of ill-considered systems of commercial laws, that we have not commanded the whole habitable world for our market, and that the 28,000,000 inhabiting the British Islands should furnish a more important array of customers than all other civilized communities, even when we include with the latter the inhabitants of our many colonies and populous dependencies, of the direct trade with which we so long reserved to ourselves the monopoly?

The argument in favour of the greater comparative value to a country of its home than of its foreign trade, which has been founded upon the greater economy and celerity with which the operations of the former are conducted, is far from being always correct when applied to England. The trading communication between the south and east coasts of Great Britain and the north and west shores of many European countries, is kept up with greater facility and economy than the traffic between some of our distant counties. The time and money expended in conveying a bale of goods from Manchester to London, by canal or by the ordinary road, are greater than are required for its conveyance from London to Rotterdam, and the charge made for the cartage of a puncheon of rum from the West India Docks to Westminster exceeds the charge that would be made for conveying the same puncheon of rum from those docks to Hamburg. Even in those branches of foreign commerce where from the length of the voyage a considerable time must elapse between the shipment of goods, their reception and sale abroad, and the transmission of returns to the hands of the shipper, a remedy for the evil of delay has been found in the operation of commercial bankers, whose dealings consist in the purchase and sale of bills of exchange, and are founded upon the varying necessities of different individual traders.

In this country, limited as it is in geographical extent, and where, as has been shown in a former section of this work, population is to all appearance fast overtaking the capability of the soil to yield the necessary amount of food, we have a motive which every year becomes more and more cogent for giving the greatest possible facilities to our

commercial intercourse with other countries. We have seen that, in the twenty years that elapsed between 1811 and 1831, the increase in the total number of families in Great Britain was 869,960, or at the rate of 34 per cent. upon the numbers of 1811, while the increase in the number of families employed in agriculture was only 65,136, or but little more than 2½ per cent.; the remainder, amounting to 804,824 families, having betaken themselves to trading and manufacturing employments.

The Census returns for 1841 are still more decisive in this respect, and show a positive diminution in the number of persons employed in agriculture in that year, as compared with 1831.

1831

	Total Population.	Males Twenty Years old and upwards employed in Agriculture.			
		Occupiers employing Labourers.	Occupiers not employing Labourers.	Agricultural Labourers.	Total.
England.	13,091,005	141,460	94,883	744,407	980,750
Wales	806,182	19,728	19,966	55,468	95,162
Scotland.	2,365,114	25,887	53,966	87,292	167,145
Army and Navy . .	277,017	..	..	..	..
	16,539,318	187,075	168,815	887,167	1,243,057

1841

	Total Population.	Males Twenty Years old and upwards employed in Agriculture.			
		Farmers and Graziers.	Gardeners, Nurserymen, and Florists.	Agricultural Labourers.	Total.
England.	15,000,154	194,596	42,364	724,625	961,585
Wales	911,603	31,807	1,141	47,447	80,395
Scotland.	2,620,184	50,732	5,727	109,550	166,009
Army and Navy . .	188,453	..	..	..	..
	18,720,394	277,135	49,232	881,622	1,207,989

Hitherto our increased numbers have mostly found an adequate supply of food by means of the improvements that have been introduced in agricultural processes, and that large proportion of our augmented population which has thus been fed from the produce of our soil has found profitable employment in various ways without producing an adequate increase to the amount of foreign commerce. This is a state of things which cannot continue indefinitely in progress. We cannot reasonably expect that the soil can always be made to yield increasing harvests to meet the constant augmentation of the population, nor that

the labours of our artisans, whose additional numbers must be reckoned yearly by hundreds of thousands, can continue to find profitable employment in a sphere thus made narrower from year to year. The onward progress of our population cannot be checked without the arrival of reverses which would plunge the greater part of the nation into a state of misery which it is painful to contemplate, and on the other hand such a check can only be averted by a great, a rapid, and a permanent extension of commercial relations with countries whose inhabitants, being in different circumstances to those which have been here described, may be willing to exchange the products of their soil for the results of our manufacturing industry.

We have happily now entered upon a course of legislation on commercial subjects, which, when fully carried out, must realize advantages in this direction which are more and more becoming matters of necessity to this country. That the system of *free trade*, by which expression is meant unrestricted intercourse with foreign countries, in which no one country shall be placed, by regulations or differential duties, at a disadvantage with any other, and no Customs duty shall be levied for any purpose whatever save the necessary one of revenue—a system in which the fallacy of *protection* shall be utterly disowned and abolished—that this system must be progressively carried out by us to its utmost limit, is now seen to be among the most settled of certainties. To persons who have observed the effects of such relaxations in our tariff as have already been carried into effect, the result of such a perfecting of the system as is here described cannot be at all doubtful. That the capital, skill, and energy possessed and exercised by the inhabitants of these islands will, when unfettered, carry us forward to a degree of commercial and manufacturing prosperity of which the world has hitherto seen no example, it required little boldness to foretel; and, that this prosperity will be attained to a very high degree, although the example of England should fail to convince the governments of other countries, and to be followed by them, does not admit of any doubt. But it is not conceivable that our example, which, on all other occasions has furnished motives of action, shall cease to do so, when seen to be fraught with so large a measure of good as hitherto has, and as no doubt will continue to accompany our course; and it cannot but add greatly to the feeling of gratification called forth by the changes now in progress, to believe that the sum of our prosperity shall be increased through the advancement of the general happiness. Shall we, then, too greatly flatter ourselves if we hope, that the nations of the world, too long divided by hatred in war, and jealousy in peace, shall be brought to see and act upon the conviction that the happiness and prosperity of each must tend to increase the happiness and prosperity of each and all other nations?

In seasons of general prosperity, when the productive classes are fully

and profitably employed, it is always found that a stimulus is given to consumption, and it very frequently has happened that the effective demand for manufactured goods thus created has excited increased production to a degree beyond what has been immediately required. When circumstances change, and a check is given to consumption, those persons who have been led thus to apply an additional amount of capital and labour, are exposed to considerable losses, and it must be obvious that the danger of encountering the evil is greater in proportion as the market which they supply is circumscribed. If limited to one country, which is suffering under circumstances of depression, the distress of the producers must be highly aggravated, but if they are accustomed to carry on commercial dealings with many foreign lands, it is not probable that all will beat the same time under depression; the evil, as far as the producers are concerned, will be easily remedied, and a small reduction in the price of their goods will then cause such an increased demand in foreign countries as will greatly palliate, if it do not remedy, the mischief arising from fluctuations in the home demand.

If the view taken in these pages of our condition and prospects has any true foundation, it was quite impossible that the remaining branches of the restrictive system to which the legislature of this country so long and so pertinaciously adhered, could be much longer continued, and that we should still empower the comparatively few amongst us "who have obtained the proprietary possession of the soil, to increase artificially the money value of their estates,"* by means of a monopoly which threatened to be destructive of the happiness and social progress of the nation. The evils consequent upon persistance in a system of virtual exclusion were imminent; they were not of a nature to be put aside or delayed by temporising measures; it would, therefore, seem most in agreement with true wisdom at once to meet the difficulty, and to determine upon the adoption of a decisive change of system.

By following such a course, we must of necessity give full freedom to the productive industry of the country in all its branches, including among the rest that class for whose supposed benefit we so long submitted to a contrary system; for it would be absurd to suppose that in a state of things such as has here been contemplated, with a constantly increasing number of customers, our agriculturists must not share in the general prosperity, and that they should, under any circumstances, fail to obtain a return for their capital and labour equal to that realized by all other classes in the community: beyond this they can have no right to claim any advantage.

The amount and progress of the foreign and colonial trade of the United Kingdom in each year from 1801 to 1849, with the exception of

* Letters on the Corn Laws, by H. B. T.

1813, the records of which year were burned with the Custom-house, are given in the following abstract:—

Statement of the Amount of the Foreign and Colonial Trade of the United Kingdom, specifying the Official Value of Foreign and Colonial Merchandise imported and re-exported, and the Official and Real or Declared Value of British and Irish Produce and Manufactures exported in each Year from 1801 to 1849.

Years.	OFFICIAL VALUE.			Real or Declared Value of British and Irish Produce and Manufactures Exported.
	Imports of Foreign and Colonial Merchandise.	Exports of Foreign and Colonial Merchandise.	Exports of British and Irish Produce and Manufactures.	
	£.	£.	£.	£.
1801	31,786,262	10,336,966	24,927,684	39,730,659*
1802	29,826,210	12,677,431	25,632,549	45,102,330*
1803	26,622,696	8,032,643	20,467,531	36,127,787*
1804	27,819,552	8,938,741	22,687,309	37,135,746*
1805	28,561,270	7,643,120	23,376,941	38,077,144
1806	26,899,658	7,717,555	25,861,879	40,874,983
1807	26,734,425	7,624,312	23,391,214	37,245,877
1808	26,795,540	5,776,775	24,611,215	37,275,102
1809	31,750,557	12,750,358	33,542,274	47,371,393
1810	39,301,612	9,357,435	34,061,901	48,438,680
1811	26,510,186	6,117,720	22,681,400	32,890,712
1812	26,163,431	9,533,065	29,508,508	41,716,964
1813	Records destroyed by fire.			
1814	33,755,264	19,365,981	34,207,253	45,494,219
1815	32,987,396	15,748,554	42,875,996	51,603,028
1816	27,431,604	13,480,780	35,717,070	41,657,873
1817	30,834,299	10,232,684	40,111,427	41,761,132
1818	36,885,182	10,859,817	42,700,521	46,603,249
1819	30,776,810	9,904,813	33,534,176	35,208,321
1820	32,438,650	10,555,912	38,395,625	36,424,652
1821	30,792,760	10,629,689	40,831,744	36,659,630
1822	30,500,094	9,227,589	44,236,533	36,968,964
1823	35,798,707	8,603,904	43,804,372	35,458,048
1824	37,552,935	10,204,785	48,735,551	38,396,300
1825	44,137,482	9,169,494	47,166,020	38,877,388
1826	37,686,113	10,076,286	40,965,735	31,536,723
1827	44,887,774	9,830,728	52,219,280	37,181,335
1828	45,028,805	9,946,545	52,797,455	36,812,756
1829	43,981,317	10,622,402	56,213,041	35,842,623
1830	46,245,241	8,550,437	61,140,864	38,271,597
1831	49,713,889	10,745,071	60,683,933	37,164,372
1832	44,586,741	11,044,869	65,026,702	36,450,594
1833	45,952,551	9,833,753	69,989,339	39,667,347
1834	49,362,811	11,562,036	73,831,550	41,649,191
1835	48,911,542	12,797,724	78,376,731	47,372,270
1836	57,023,867	12,391,711	85,229,837	53,368,571
1837	54,737,301	13,233,622	72,548,047	42,069,245
1838	61,268,320	12,711,318	92,459,231	50,060,970
1839	62,004,000	12,795,990	97,402,726	53,233,580
1840	67,432,964	13,774,306	102,705,372	51,406,430
1841	64,377,962	14,723,151	102,180,517	51,634,623
1842	65,204,729	13,584,158	100,260,101	47,381,023
1843	70,093,353	13,956,113	117,877,278	52,278,449
1844	85,441,555	14,397,246	131,564,503	58,584,292
1845	85,281,958	16,280,870	134,599,116	60,111,081
1846	75,953,875	16,296,162	132,288,345	57,786,875
1847	90,921,866	20,036,160	126,130,986	58,842,377
1848	93,547,134	18,368,113	132,617,681	52,849,445
1849	105,874,607	25,561,890	164,539,504	63,596,025

* The declared value of British and Irish produce, &c., exported in the years 1801 to 1804, applies to Great Britain only, the real value of exports from Ireland not having been recorded earlier than 1805. The exports from Ireland are, however, inconsiderable.

The rates of valuation employed for computing the amounts given under the head of *official value* were fixed in the year 1694, and have not since been altered, so that the sums thus stated must not be supposed to give any accurate exhibition of the value of goods imported and exported. This system of valuation has been preserved in the public accounts, because it has been supposed to afford a correct measure of the comparative quantity of merchandise which has made up the sum of our annual commercial dealings with other countries. It is, perhaps, impossible to ascertain with absolute correctness the value of all the foreign and colonial merchandise imported, because of the great range of qualities and consequently of value as regards many of the principal articles of commerce, and which value cannot be accurately estimated before the goods are landed and submitted to inspection; it would, however, be not only possible but easy of accomplishment, to arrive at a satisfactory approximation to the truth, if some competent persons in various lines of business were employed every year to affix an average value to the different descriptions of goods that had been imported in the course of the preceding year, and which average value should be used by the computers at the Custom-house for ascertaining the amount of the year's commercial dealings. The fallacy of the present system will be at once apparent if the amounts given as the official value of imports and exports in any one year are brought into comparison. On the supposition of the correctness of the Custom-house valuations, our foreign and colonial trade must long since have proved the ruin of our merchants, since the value assigned to the exports is enormously greater than that given to the imports. To instance the first and last years of the series in the following table, the loss of the country in 1801 must have amounted to 3,478,388*l.*, and in 1849 to 84,226,787*l.* The adoption of a second method for recording the value of the exports of British and Irish produce and manufactures, according to the declaration of the exporters, affords better means for judging as to the actual progress of our foreign trade, since it is certain that, taking one year with another, the amount of the shipments so made must be brought back to us together with the ordinary rate of profit. If the foregoing table be taken in this way as the test of the progress of our foreign trade, during the present century, it will be seen that, from 1819 to the year 1835, little or none was made—that in fact the amount of our foreign trade had not then been equal to that which was carried on during some of the years when we were at war with nearly all Europe, nor to that of the first five years of peace that followed. The average annual exports of British produce and manufactures in the decennary period from 1801 to 1810 amounted to 40,737,970*l.* In the next ten years, from 1811 to 1820, the annual average was

41,484,461*l.*; from 1821 to 1830 the annual average fell to 36,597,623*l.* Since that time the amount has been progressively advancing, and in the next decennary period (1831 to 1840) the average was 45,244,257*l.*; while in the nine years that close the series, the average value of our exports reached 55,896,021*l.*

With 1831 were begun, under the auspices of the late Lord Sydenham, a series of fiscal reforms far too numerous to be particularised here. In the eight years during which, excepting one short interval in 1834-5, he officiated as Vice-President and then as President of the Board of Trade, that minister carried through the House of Commons reductions and modifications of duties affecting more than 700 articles of importation. The individual effect of these reforms may not have been great, but in their aggregate they were followed by the happiest results. Among the measures here alluded to were several which affected our commerce with France, and especially the equalising of the duties upon wine, the produce of that country, with the rates charged upon other foreign wines. During subsequent years, and until this time, the legislatures of France have done little or nothing in liberalising its tariff; but, on the contrary, duties materially affecting the industry of England have been increased by them with the declared intention of discouraging certain branches of our trade; and yet (so true is it that a nation cannot sell without buying), their augmented sales to us of French produce have been accompanied by continually augmented purchases from us in return. The value of our exports to France, which in 1830 amounted to only 475,884*l.*, has since reached to more than six-fold that sum, and it is a fair presumption, that had our fiscal reforms been met in a corresponding spirit by the French legislature, the trade between the two countries would by this time have reached an amount more consistent than it is with the interests of the two people, and more in proportion to the wants and desires of upwards of sixty millions of people.

The imperfect manner in which the Custom-house accounts were formerly called for by Parliament, and the subsequent destruction of the Custom-house by fire, do not allow of any analysis being made of the foregoing statement for all the earlier years of the series. The following abstract (pages 359 and 360), exhibiting the course of our export trade from 1805 to 1811, and from 1814 to 1849, will show in how great a degree it has been owing of late years to the enterprise of our merchants in seeking new and distant fields for commercial operations that the money-value has been maintained of the produce and manufactures of the kingdom which have been exported, and that we have been able to command and to consume to a greater extent than formerly the productions of other countries.

A Statement of the Real or Declared Value of British and Irish Produce and Manufactures exported from the United Kingdom to different Foreign Countries and Colonial Possessions, in each of the Years 1805 *to* 1811, *and* 1814 *to* 1849.

Years.	Northern Europe.	Southern Europe.	Africa.	Asia.	United States of America.	British North American Colonies and West Indies.	Foreign West Indies.	Central and Southn. America (including Brazil).	America, exclusive of the United States.	Total.
	£.		£.	£.	£.	£.	£.	£.	£.	£.
1805	13,625,676		756,060	2,904,584	11,011,409	..	..	..	7,771,418	36,069,147
1806	11,363,635		1,163,744	2,937,895	12,389,488	..	..	..	10,877,968	38,732,730
1807	9,002,237		765,468	3,359,226	11,846,513	..	..	..	10,439,423	35,412,867
1808	9,016,033		633,125	3,524,823	5,241,739	..	..	..	16,591,871	35,007,591
1809	15,849,449		804,452	2,867,832	7,258,500	..	..	..	18,014,219	44,794,452
1810	15,627,806		595,031	2,977,366	10,920,752	..	..	..	15,640,166	45,761,121
1811	12,834,680		336,742	2,941,194	1,841,253	..	..	..	11,939,680	29,893,549
1814	14,113,775	12,755,816	372,212	2,340,417	8,129	11,429,452	1,791,167	2,683,151	..	45,494,119
1815	11,971,692	8,764,552	333,842	2,931,935	13,255,374	10,687,551	1,156,875	2,531,150	..	51,632,971
1816	11,369,086	7,284,469	351,674	3,071,197	9,556,577	7,016,410	860,948	2,147,497	..	41,657,858
1817	11,408,083	7,685,491	406,359	3,725,386	6,930,359	7,405,516	1,279,781	2,651,337	..	41,492,312
1818	11,809,243	7,630,139	390,586	3,876,677	9,451,009	7,789,780	1,169,609	3,995,757	..	46,112,800
1819	9,895,397	6,895,255	316,294	2,715,018	4,929,815	6,861,314	892,306	2,376,328	..	34,881,727
1820	11,289,891	7,139,612	393,298	3,810,290	3,875,286	5,756,864	939,781	2,921,300	..	36,126,322
1821	9,044,155	6,859,287	482,117	4,277,790	6,214,875	5,461,863	1,050,778	2,942,237	..	36,333,102
1822	8,327,576	8,273,986	384,944	3,984,796	6,865,262	4,778,721	868,040	3,166,714	..	36,650,039
1823	8,055,638	6,801,490	507,328	3,941,448	5,464,874	5,311,757	1,073,914	4,218,893	..	36,375,342
1824	7,691,357	8,007,583	417,741	3,692,404	6,090,394	5,779,033	1,171,221	5,572,579	..	38,422,312
1825	8,547,781	6,098,577	401,588	3,622,981	7,018,934	5,847,287	907,988	6,425,715	..	38,870,851
1826	7,822,776	6,070,494	295,768	4,322,240	4,659,018	4,601,072	570,409	3,194,947	..	31,536,724
1827	8,533,263	5,945,701	671,488	4,799,452	7,018,272	4,980,572	907,303	4,004,119	..	36,860,376

A Statement of the Real or Declared Value of British and Irish Produce, &c.—continued.

Years.	Northern Europe.	Southern Europe.	Africa.	Asia.	United States of America.	British North American Colonies and West Indies.	Foreign West Indies.	Central and Southn. America (including Brazil).	America, exclusive of the United States.	Total.
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
1828	8,243,082	5,532,788	716,926	4,892,408	5,810,315	4,980,748	818,056	5,489,005	..	36,483,328
1829	8,346,118	6,199,356	828,729	4,231,350	4,823,415	5,193,808	969,885	4,929,966	..	35,522,627
1830	8,376,751	7,233,887	905,220	4,455,392	6,132,346	4,695,581	939,822	5,188,562	..	37,927,561
1831	7,317,870	6,232,570	803,392	4,105,444	9,053,583	4,671,276	1,039,634	3,615,969	..	36,839,738
1832	9,897,057	5,686,949	880,753	4,235,483	5,468,272	4,515,533	1,176,804	4,272,247	..	36,133,098
1833	9,313,589	6,298,200	937,015	4,711,619	7,579,699	4,690,139	958,756	4,842,396	..	39,331,413
1834	9,505,892	8,501,141	993,120	4,644,318	6,844,989	4,351,093	1,270,302	5,177,671	..	41,288,526
1835	10,303,316	8,161,117	1,146,047	5,456,116	10,568,455	5,345,698	1,152,841	4,887,068	..	47,020,658
1836	9,999,861	9,011,205	1,468,062	6,750,842	12,425,605	6,518,744	1,238,785	5,955,468	..	53,368,572
1837	11,528,089	7,873,231	1,439,518	5,561,304	4,695,225	5,597,780	1,062,763	4,312,834	..	42,070,744
1838	12,130,195	10,113,304	1,847,759	6,955,618	7,585,760	5,385,898	1,315,531	4,726,905	..	50,060,970
1839	12,331,680	8,466,224	1,607,258	7,643,279	8,839,204	7,034,269	1,284,589	6,027,277	..	53,233,580
1840	12,283,179	9,208,066	1,615,459	9,276,114	5,283,020	6,422,883	1,115,499	6,202,210	..	51,406,430
1841	13,159,585	9,694,955	1,856,586	8,167,081	7,098,642	5,451,065	1,064,583	5,142,126	..	51,634,623
1842	14,030,827	9,878,517	1,732,606	7,456,454	3,528,807	4,924,950	853,834	4,975,028	..	47,381,023
1843	14,024,153	10,947,304	1,713,691	9,547,396	5,013,514	4,633,652	973,006	5,426,993	..	52,279,709
1844	14,326,797	11,294,388	1,615,530	11,273,721	7,938,079	5,522,338	1,173,931	5,439,508	..	58,584,292
1845	15,032,113	11,211,018	1,896,244	10,973,714	7,142,839	6,345,165	1,464,087	5,985,902	..	60,111,082
1846	14,695,575	11,431,238	1,803,227	10,189,668	6,830,460	6,813,646	1,445,046	5,578,016	..	58,786,876
1847	13,906,015	10,703,449	2,049,087	9,118,692	10,974,161	5,506,538	1,509,776	5,074,659	..	58,842,377
1848	12,045,346	10,375,797	1,962,696	8,535,676	9,564,909	3,537,421	998,585	5,829,015	..	52,849,445
1849	13,957,495	11,168,767	2,464,811	10,931,302	11,971,028	4,307,776	1,552,308	7,242,538	..	63,596,025

That part of our commerce which, being carried on with the rich and civilized inhabitants of European nations, should present the greatest field for extension, had, it will be seen, fallen off under this aspect in a remarkable degree. The average annual exports to the whole of Europe were less in value by nearly 20 per cent., in the five years from 1832 to 1836, than they were in the five years that followed the close of the war; and it affords strong evidence of the unsatisfactory footing upon which our trading regulations with Europe were established, that our exports to the United States of America, which with a population of only twelve millions, and removed to a distance from us of 3000 miles across the Atlantic, then amounted to more than one-half of the value of our shipments to the whole of Europe, with a population fifteen times as great as that of the United States of America, and with an abundance of productions suited to our wants, which they are naturally desirous of exchanging for the products of our mines and looms.

The quantity and value of all the principal articles of British produce and manufactures that were exported in each of the twenty-two years from 1827 to 1848, and the proportions in which those shipments were made to different countries, are shown in the following tables (pp. 362-367), which thus exhibit the most accurate view, that can be given by any Custom-house document, of the actual and relative importance of each branch of our foreign commerce.

Some few remarks appear to be necessary here, in order to prevent our falling into mistakes as regards our foreign trade with some of the countries particularised in the annexed table (pp. 362-367). Under the head of Prussia, we see a value assigned to the exports which is quite inconsiderable, and which, if left unexplained, might lead to a very wrong conclusion. A very small part of the British goods which find their way to Prussia for consumption are exported direct to any Prussian port: some of those goods pass through the Netherlands to the Rhenish provinces, and still more are shipped to Hamburg and other ports in the North of Germany, whence they are forwarded by land-carriage to the interior. In an official statement compiled at Berlin, to show the amount of importations into the Prussian States, as to which this kingdom was interested in the years 1832, 1833, and 1834, the value is thus given:—

	1832	1833	1834
British Produce and Manufactures .	£13,712,700	£12,826,380	£10,531,010
Other Goods (Colonial Produce, &c.) .	5,012,300	4,655,050	5,583,760
	18,725,000	17,481,430	16,114,770

The rates of valuation applied in the computation of these amounts are very greatly exaggerated; but when the necessary allowance shall be made for this fact, it will still be found that the Prussians are far better customers to our manufacturers than would appear upon the face of our public documents.

An Account of the Declared Value of British and Irish Produce and Manufactures Exported from the United Kingdom, specifying the various Countries to which the same were Exported, in each Year from 1827 *to* 1845.

COUNTRIES.	1827	1828	1829	1830	1831	1832	1833	1834	1835
	£.	£.	£.	£.	£.	£.	£.	£.	£.
Russia	1,408,970	1,318,936	1,435,805	1,489,538	1,191,565	1,587,250	1,531,002	1,382,300	1,752,775
Sweden	46,731	42,699	38,252	40,488	57,127	64,932	59,549	63,094	105,156
Norway	33,129	53,582	64,234	63,926	58,580	34,528	55,038	61,988	79,278
Denmark	104,916	111,880	95,247	118,813	92,294	93,336	99,951	94,595	107,979
Prussia	174,338	179,145	189,011	177,923	192,816	258,556	144,179	136,423	188,273
Germany	4,654,618	4,394,104	4,473,555	4,463,605	3,642,952	5,068,997	4,355,548	5,547,166	4,602,966
Holland Belgium	2,404,561	2,142,736	2,050,014	2,022,458	2,082,536	2,789,398	2,181,833 886,429	2,470,267 750,059	2,648,402 818,487
France	446,952	498,938	491,388	475,884	602,688	674,791	848,333	1,116,885	1,453,636
Portugal, Proper	1,400,044	945,016	1,195,404	1,106,695	975,991	540,792	967,091	1,600,123	1,554,326
„ Azores	26,687	27,940	31,244	23,629	41,638	77,920	54,430	63,275	49,717
„ Madeira	39,916	39,802	40,283	38,444	38,960	28,038	33,411	38,455	40,082
Spain and the Balearic Islands	225,414	301,153	861,675	607,068	597,848	442,926	442,837	325,907	405,065
„ Canaries	48,821	38,152	50,010	42,620	33,282	21,053	30,507	30,686	24,308
Gibraltar	1,045,266	1,038,925	504,163	292,760	367,285	461,470	385,460	460,719	602,580
Italy and the Italian Islands	1,942,752	2,176,149	2,202,030	3,251,379	2,490,376	2,361,772	2,316,260	3,282,777	2,426,171
Malta	200,949	233,458	224,010	189,135	134,519	96,994	135,438	242,696	136,925
Ionian Islands	37,196	41,078	30,465	56,963	50,883	55,725	38,915	94,498	107,804
Turkey & Continental Greece Morea and Greek Islands	531,704	185,842 335	568,684 ..	1,139,616 9,694	888,654 10,446	915,319 10,149	1,019,604 25,914	1,207,941 37,179	1,331,669 28,834
Syria and Palestine	..	..	..	..	..	..	..	..	..
Egypt (Ports on the Mediterranean)	53,624	35,302	59,305	110,227	122,832	113,109	145,647	158,877	269,225
Tripoli, Barbary, and Morocco	8,201	13,745	..	1,138	426	751	2,350	14,823	29,040
Western Coast of Africa	155,759	191,452	244,253	252,123	234,768	290,061	329,210	326,483	292,540
Cape of Good Hope	216,558	218,049	257,501	330,036	257,245	292,405	346,197	304,382	326,921
Eastern Coast of Africa	..	..	..	..	..	..	..	..	..
African Ports on the Red Sea	..	..	..	..	..	..	..	..	..
Ascension Island	..	..	..	..	..	..	..	..	..
Cape Verd Islands	76	5,856	240	1,710	215	..	146	530	575
St. Helena	41,430	31,362	45,531	38,915	39,431	21,236	30,041	31,615	31,187

Isle of Bourbon	127	35,188	16,341	10,041	..	..	..	7,091	..
Madagascar	..	..	..	..	..	..	..	..	..
Mauritius	195,713	185,972	205,558	161,029	148,475	163,191	83,424	149,319	196,559
Arabia	..	..	..	..	..	..	..	250	6,049
East India Company's Territories and Ceylon	3,662,012	4,256,582	3,659,218	3,895,530	3,377,412	3,514,779	3,495,301	2,578,569	3,192,692
China	610,637							842,852	1,074,708
Sumatra, Java, & other Islands of the Indian Seas	120,747	189,200	255,885	162,102	285,296	156,606	471,712	410,273	353,892
Philippine Islands	65,926	300	4,721	71,290	39,513	102,284	185,298	76,518	129,743
New South Wales, Van Diemen's Land, and Swan River	339,958	443,839	310,681	314,677	398,471	466,238	558,372	716,014	696,345
New Zealand and South Sea Islands	172	2,487	845	1,396	4,752	1,576	936	..	2,687
Ports of Siam	..	..	..	10,467	..	..	..	19,742	..
British N. American Colonies	1,307,350	1,691,044	1,581,723	1,857,133	2,089,327	2,075,725	2,092,550	1,671,069	2,158,158
„ West Indies	3,583,222	3,289,704	3,612,085	2,838,448	2,581,949	2,439,808	2,597,589	2,680,024	3,187,540
Hayti	257,931	248,328	297,709	321,793	376,103	543,104	381,528	357,297	365,798
Cuba and other Foreign West Indies	649,378	569,728	672,176	618,029	663,531	653,700	577,228	913,005	787,043
United States of America	7,018,272	5,810,315	4,823,415	6,132,346	9,053,583	5,468,272	7,579,699	6,844,989	10,568,455
Mexico	692,800	307,029	303,562	978,441	728,858	199,821	421,487	459,610	402,820
Texas	..	..	..	..	..	..	..	..	..
Guatemala	1,943	6,191	..	..	..	..	3,700	30,366	15,214
Columbia	213,972	261,113	232,703	216,751	248,250	283,568	121,826	199,996	132,242
Brazil	2,312,109	3,518,297	2,516,040	2,452,103	1,238,371	2,144,903	2,575,680	2,460,679	2,630,767
States of the Rio de la Plata	154,895	312,389	758,540	632,172	339,870	660,152	515,362	831,564	658,525
Chili	400,134	709,371	818,950	540,626	651,617	708,153	816,817	896,221	606,176
Peru	228,466	374,615	300,171	368,469	409,003	275,610	387,524	239,235	441,324
Falkland Islands	..	..	..	..	..	..	..	..	..
South Whale Fishery	..	..	..	..	..	..	..	..	..
Foreign Settlements on the N.W. Coast of America	..	..	..	..	..	..	..	..	..
Isles of Guernsey, Jersey, Alderney, and Man	320,959	329,428	319,996	344,036	324,634	317,496	335,934	360,665	351,612
Total	37,181,335	36,812,756	35,842,623	38,271,597	37,164,372	36,450,594	39,667,847	41,649,191	47,372,270

An Account of the Declared Value of British and Irish Produce and Manufactures Exported from the United Kingdom, &c.—continued.

COUNTRIES.	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
Russia	1,742,433	2,046,592	1,663,243	1,776,426	1,602,742	1,607,175	1,885,953	1,895,519	2,128,926	2,153,491
Sweden	113,308	101,121	102,647	121,850	119,425	197,813	199,313	131,302	108,475	123,730
Norway	79,469	72,413	77,485	81,584	78,016	117,938	134,704	151,377	152,824	163,512
Denmark	91,302	103,448	181,404	143,732	201,462	191,481	194,304	260,176	286,679	258,558
Prussia	160,722	131,536	155,223	206,866	219,345	363,821	376,651	483,004	505,384	577,999
Germany	4,463,729	4,898,016	4,988,900	5,215,155	5,408,499	5,654,033	6,202,700	6,168,038	6,151,528	6,517,796
Holland	2,509,622	3,040,029	3,549,429	3,563,792	3,416,190	3,610,877	3,573,362	3,564,720	3,131,970	3,439,035
Belgium	839,276	804,917	1,068,010	881,831	880,286	1,066,040	1,099,490	984,650	1,471,251	1,479,058
France	1,591,381	1,643,204	2,314,141	2,298,307	2,378,149	2,902,002	3,193,939	2,534,898	2,656,259	2,791,238
Portugal, Proper	1,085,934	1,079,815	1,165,395	1,135,926	1,110,244	1,036,212	947,855	1,092,134	1,153,847	980,380
„ Azores	53,574	56,405	38,385	47,663	44,743	38,280	39,862	43,802	56,839	50,938
„ Madeira	52,168	46,044	34,947	33,493	33,157	24,608	25,047	36,969	31,736	27,507
Spain and the Balearic Islands	437,076	286,636	243,839	262,231	404,252	413,849	322,614	376,013	509,207	676,636
„ Canaries	40,370	41,904	47,693	47,710	45,872	49,738	54,554	41,734	46,323	42,272
Gibraltar	756,411	906,155	894,096	1,170,702	1,111,176	1,053,367	937,719	1,176,737	1,049,567	768,973
Italy and the Italian Islands	2,921,466	2,406,066	3,076,231	2,079,010	2,660,338	2,578,697	2,494,197	2,960,965	2,569,240	2,601,911
Malta	143,015	103,680	226,040	125,338	166,545	223,734	289,304	224,546	200,009	183,065
Ionian Islands	109,123	124,465	96,190	64,010	82,204	119,523	83,600	127,598	123,928	209,612
Turkey & Continental Greece	1,775,034	1,163,426	1,767,110	1,178,712	1,138,559	1,220,261	1,472,288	1,699,725	2,291,404	2,211,278
Morea and Greek Islands	12,003	15,431	20,887	23,122	25,827	34,684	17,538	30,052	28,201	35,577
Syria and Palestine	33,650	..	188,440	251,509	223,030	427,093	375,551	602,031	577,828	631,631
Egypt (Ports on the Mediterranean)	216,930	220,080	242,505	123,859	79,063	238,486	221,003	246,565	402,101	291,850
Tripoli, Barbary, & Morocco	29,322	54,007	74,013	74,073	63,904	44,126	41,952	83,494	17,740	30,360
Western Coast of Africa	467,186	312,938	413,354	468,370	492,128	410,798	459,685	590,609	458,414	532,028
Cape of Good Hope	482,315	488,814	623,323	464,130	417,091	384,574	369,076	502,577	424,151	648,749
Eastern Coast of Africa	..	..	10,569	..	..	22	..	..	127	1,500
African Ports on the Red Sea	..	..	196	196	..	..	262	40	152	..
Ascension Island	..	..	1,075	333	..	541	1,145	4,976	2,204	29,124
St. Helena	11,041	9,645	13,990	12,668	9,884	7,921	17,530	25,839	21,006	
Cape Verd Islands	413	751	1,392	189	4,547	2,885	1,480	1,577	1,987	1,257
Isle of Bourbon	..	3,795	..	..	..	..	..	..	..	250
Madagascar	..	..	..	..	..	..	..	..	1,998	..
Mauritius	260,855	349,488	467,342	211,731	325,812	340,140	244,922	258,014	285,650	345,059

Arabia	16,358	787	167	3,680	2,115	2,952	5,082	8,924	11,009	16,067
Aden	..	..	..	..	..	..	..	..	..	..
Persia	..	..	..	..	..	..	..	..	..	..
East India Company's Territories and Ceylon	4,285,829	3,612,975	3,876,196	4,748,607	6,023,192	5,595,000	5,169,888	6,404,519	7,695,666	6,703,778
China	1,326,388	678,375	1,204,356	851,969	524,198	862,570	969,381	1,456,180	2,305,617	2,394,827
Sumatra, Java, and other Islands of the Indian Seas	234,852	313,791	505,362	292,731	349,521	285,514	306,132	218,615	376,918	515,473
Philippine Islands	51,778	33,808	31,780	43,443	325,463	84,419	47,019	152,096	92,517	115,515
New South Wales, Van Diemen's Land, & Swan River	835,637	921,568	1,336,662	1,679,390	2,004,385	1,269,351	916,164	1,211,815	744,482	1,201,076
New Zealand and South Sea Islands	..	..	1,095	23,459	47,240	67,275	42,788	95,247	47,512	43,045
Ports of Siam	..	..	..	..	..	..	..	..	..	..
British N. American Colonies	2,732,291	2,141,035	1,992,457	3,047,671	2,847,913	2,947,061	2,333,525	1,751,211	3,070,861	3,555,954
„ West Indies	3,786,453	3,456,745	3,393,441	3,986,598	3,574,970	2,504,004	2,591,425	2,882,441	2,451,477	2,789,211
Hayti	251,663	171,050	290,139	392,763	251,979	169,142	141,896	99,209	174,457	215,072
Cuba and other Foreign West Indies	987,122	891,713	1,025,392	891,826	863,520	895,441	711,938	873,797	999,474	1,249,015
United States of America	12,425,605	4,695,225	7,585,760	8,839,204	5,283,020	7,098,642	3,528,807	5,013,514	7,938,079	7,142,839
Mexico	254,822	520,200	439,776	660,170	465,330	434,901	374,969	597,937	494,095	547,130
Texas	..	..	..	..	..	6,767	6,574	5,430	3,906	4,824
Guatemala	764	78	..	627	2,373	21,265	..	5,103	..	..
Columbia	185,172	170,451	174,338	267,112	359,743	158,972	231,711	378,521	264,688	..
New Granada, Venezuela, and Equador	..	..	..	..	..	..	..	..	..	390,149
Brazil	3,030,532	1,824,082	2,606,604	2,650,713	2,625,853	2,556,554	1,756,805	2,140,133	2,413,538	2,493,306
States of the Rio de la Plata	697,334	696,104	680,345	710,524	614,047	983,362	969,791	700,416	784,564	592,279
Chili	861,903	625,545	413,647	1,103,073	1,334,873	438,089	950,466	938,959	807,633	1,077,615
Peru	606,332	476,374	412,195	635,058	799,991	536,046	684,313	659,961	658,380	878,708
Falkland Islands	..	..	..	..	..	145	384	533	93	814
South Whale Fishery	..	..	..	..	..	25	15	..	..	..
Foreign Settlements on the N.W. Coast of America	..	..	..	..	..	..	..	..	12,611	1,077
Isles of Guernsey, Jersey, Alderney, and Man	318,609	330,017	343,854	340,444	357,214	350,407	364,350	385,367	389,760	378,934
Total	53,368,572	42,070,744	50,060,970	53,233,580	51,406,430	51,634,623	47,381,023	52,279,709	58,584,292	60,111,082

An Account of the Declared Value of British and Irish Produce and Manufactures Exported from the United Kingdom, specifying the various Countries to which Exported, in the Years 1846, 1847, 1848, *and* 1849.

COUNTRIES.	1846	1847	1848	1849
	£.	£.	£.	£.
Russia, Northern Ports	1,586,235	1,700,733	1,692,006	1,379,179
„ Ports within the Black Sea	138,913	143,810	233,220	186,996
Sweden	146,654	179,367	162,819	185,027
Norway	183,818	169,149	150,117	182,336
Denmark (including Iceland)	340,318	253,701	296,466	353,599
Prussia	544,035	553,968	404,144	428,748
Mecklenburg-Schwerin	36,976	105,164	37,648	106,784
Hanover	218,111	147,357	141,250	150,927
Oldenburg and Kniphausen	25,134	26,080	11,287	5,650
Hanseatic Towns	6,326,210	6,007,366	4,669,259	5,386,246
Heligoland	101	250	321	357
Holland	3,576,469	3,017,423	2,823,258	3,499,937
Belgium	1,158,034	1,059,456	823,968	1,457,584
Channel Islands	414,567	542,191	599,583	634,125
France	2,715,963	2,554,283	1,024,521	1,951,269
Portugal, Proper	969,757	889,916	1,175,748	979,597
„ Azores	57,146	42,980	55,360	58,406
„ Madeira	39,358	33,853	40,822	35,009
Spain, Continental, and the Balearic Islands	769,793	770,729	616,878	623,136
„ Canary Islands	49,816	30,680	45,832	58,378
Gibraltar	605,693	466,845	750,257	533,481
Italy, with the adjacent coast of the Asiatic, and the Islands, *viz.*:—				
Sardinian Territories	474,622	355,366	611,992	740,806
Duchy of Tuscany	919,173	637,748	751,953	777,273
Papal Territories	281,516	181,894	152,746	202,518
Naples and Sicily	993,730	636,690	695,666	1,115,260
Austrian Territories	721,981	537,009	494,525	658,992
Malta and Gozo	255,033	195,836	379,467	387,744
Ionian Islands	171,731	143,426	178,831	165,805
Kingdom of Greece	194,029	233,913	284,834	288,847
Turkish Dominions, exclusive of Wallachia and Moldavia, Syria and Egypt	1,749,125	2,363,442	2,664,281	2,373,669
Wallachia and Moldavia	195,154	213,547	193,898	218,577
Syria and Palestine	267,618	415,292	258,186	338,366
Egypt, Ports on the Mediterranean	495,674	538,308	509,876	638,411
Tunis	..	607	244	3,228
Algeria	25,928	13,881	8,830	12,551
Morocco	22,188	16,231	21,996	65,101
Western Coast of Africa	421,620	518,420	571,022	620,371
Colonial Territory of the Cape of Good Hope	480,979	688,208	645,718	520,896
Eastern Coast of Africa	5,041	13,751	..	5,489
African Ports on the Red Sea	350	505	590	1,220
Cape Verd Islands	2,505	4,145	3,324	1,774
Ascension and St. Helena, Islands of	28,309	31,378	31,728	23,312
Madagascar	2,580	..	..	..
Mauritius	310,231	223,563	169,308	234,022
Arabia (exclusive of Aden)	7,822	..	..	..
Aden	14,594	11,488	13,377	14,564
Persia	3,091	929	6,279	2,568
British Territories in the East Indies	6,434,456	5,470,105	5,077,247	6,803,274
Islands of the Indian Seas, *viz.*:—				
Java	355,009	357,870	336,843	382,055
Philippine Islands	92,806	104,486	143,897	80,997
Other Islands	2,909	307	742	1,057
China and Hong Kong	1,791,439	1,503,969	1,445,959	1,537,109
British Settlements in Australia	1,441,640	1,644,170	1,463,931	2,080,364
South Sea Islands	53,724	25,368	47,401	29,314
British North America	3,308,059	3,233,014	1,990,592	2,280,386
„ West Indies and British Guiana	3,253,420	2,102,577	1,434,477	1,821,146
Honduras, British Settlements	252,167	170,947	112,352	206,244

An Account of the Declared Value of British and Irish Produce and Manufactures Exported from the United Kingdom, &c.—continued.

COUNTRIES.	1846	1847	1848	1849
	£.	£.	£.	£.
Foreign West India Islands, *viz.*:—				
Cuba	844,112	896,554	733,169	1,036,153
Porto Rico	4,533	16,822	1,017	2,910
Guadaloupe	580	164	218	..
Martinique	318	196	..	93
Curaçoa	6,877	1,089	..	9,966
St. Croix	4,576	14,797	4,074	9,067
St. Thomas	446,317	386,599	171,660	383,023
French Guiana	1,620	..	..	..
Dutch Guiana	..	1,466	380	1,790
Hayti	136,113	192,089	88,067	109,306
United States of America	6,830,460	10,974,161	9,564,909	11,971,028
Mexico	303,685	100,688	945,937	779,059
Central America	68,500	86,983	75,146	117,933
New Granada	219,593	145,606	247,916	331,112
Venezuela	245,059	182,279	56,066	178,998
Ecuador	7,455	..	6,094	9,689
Brazil	2,749,338	2,568,804	2,067,302	2,444,715
Oriental Republic of the Uruguay	153,479	334,083	156,759	36,666
Buenos Ayres, or Argentine Republic	34,002	156,421	449,194	1,362,909
Chili	959,322	866,325	967,308	1,089,914
Bolivia	4,493	22,375	..	..
Peru	820,535	600,814	853,129	878,251
Falkland Islands	3,117	2,083	717	6,173
Russian Settlements on the North West Coast of America	9,438	8,193	3,409	6,417
Greenland and Davis' Straits	..	..	43	702
Total	57,786,876	58,842,377	52,849,445	63,596,025

Spain appears, from the same table, to take from us goods to a very inconsiderable amount; and there can be no doubt that, if the political troubles of that country were at an end, and if a more rational system of commercial policy than has hitherto been pursued were adopted by the Spanish Government, our trade with Spain must increase in a most important degree. Still that trade is at present much greater in reality than it is in appearance; a large part of the goods exported from this country to Gibraltar and to Portugal being afterwards introduced clandestinely into the Spanish provinces. The extent of the contraband trade carried on at Gibraltar is strikingly exhibited by the fact, that the annual importation of tobacco into that colony amounts to from six to eight millions of pounds; nearly the whole of which is purchased by smugglers, and introduced by them clandestinely into Spain.

The value of our exports to the whole of the West Coast of Africa averaged, during the five years ending with 1844, the sum of 482,326*l.* per annum. More than one-half of this amount was taken by the British Settlements on the Gambia, Sierra Leone, Cape Coast Castle, and Accrah, leaving little more than 200,000*l.* for the remaining parts of the country, embracing, between the river Gambia and Angola, nearly four thousand miles of coast, and containing upon a moderate estimate 30,000,000 of inhabitants. These people must not be considered, as

regards commercial objects, in the same light as those who enjoy a greater degree of civilization; but the experience of the last 40 years affords sufficient proof of the value which the trade with the negro population might be made to assume. In 1808 the whole quantity of palm oil imported did not exceed 200 tons; in 1836 it amounted to 13,850 tons; in 1844 to 20,732 tons; and in 1849 to 44,666 tons. Thirty years ago African timber was unknown to us, and our annual importations have since amounted to more than 20,000 loads. This increase has taken place, too, under the most unfavourable circumstances. The whole country is disorganized, and except in the immediate vicinity of the towns, the land lies waste and uncultivated, the wretched natives living under constant dread of being carried off into slavery. The legitimate trade of our vessels when on the African coast is continually impeded by the appearance of slave-traders, on the arrival of which, the natives quit all other occupations and proceed on marauding expeditions, to seize the members of some neighbouring tribe, and sell them as slaves. Until a sufficient number of these poor creatures is collected to crowd the vessel of the slave-trader all other occupations are stopped; and it is not merely the loss of time and consequent expenses thus occasioned that are to be deplored, but the great waste of life among the crews of the English traders while uselessly detained upon an unhealthy coast. Everywhere are to be seen the baleful effects of this traffic, producing desolation where Nature has been prodigal of her gifts. According to Mr. Laird, one of the most intelligent travellers to that region, "The Delta of the Niger alone, if cleared and cultivated, would support a population in proportion to its area far exceeding anything known in Europe. Its square surface is equal to the whole of Ireland; it is intersected in all directions by navigable branches of the parent stream, forming so many natural channels for communication: it is altogether composed of the richest alluvial soil, which now teems with a rank luxurious vegetation, comprising all the varieties of the palm-tree, besides teak-wood, cedar, ebony, mahogany, and dye-woods: the sugar-cane grows wild in the bush, and the palm-nut rots upon the ground unheeded and neglected. The population of this Delta I should consider does not exceed half a million."

If the population of this region—and there are many others to which the same description might be applied—were weaned from their present habits of violence, and if advantage were taken of their desire for obtaining some kinds of European manufactures, to engage them in the cultivation of the soil, can it be believed that our commercial dealings with them would continue, as it is at present, scarcely greater in amount than the value of the eggs brought annually from Ireland to the single port of Liverpool? Among the objects to which the industry of Africans could be profitably applied, perhaps the most important is

the article of cotton. Its cultivation does not call for any great amount of labour; the returns are speedily obtained; the market for it is continually being extended; and, as regards this country, it is a matter of very high importance that the million of persons who are dependent for their daily subsistence upon the regular supply of that material, should have the chances of disappointment lessened, as far as possible, by extending the number of the producers, and multiplying the regions in which they are found.

There is reason to believe that the goods exported from the United Kingdom to our North American Colonies do not all remain for the consumption of the colonists, but that a portion is conveyed across the Saint Lawrence into the territory of the United States. On the other hand, some shipments made apparently to the United States, accompany English settlers, who proceed through the States to their ultimate destination in Upper Canada; but the value in both these cases must be comparatively unimportant. Of the exports to the British West Indies, some part is shipped *in transitu*, and goes for consumption to Cuba, and to ports on the Mosquito coast. The whole amount assigned to Turkey does not properly belong to our trade with that country, some part being sent forward to Asia Minor and Persia. With regard to the exports to our West India Colonies, it may further be observed, that the *value* of late years has materially fallen off, which fact is probably owing, in part, to the peculiar nature of the population, for the supply of which given quantities of stores and clothing were formerly required, without reference to their cost in this country; so that the reduction in price of the generality of articles which make up the sum of our exports has not been followed by much, if any, increased consumption. Besides this, goods were in former years sent to Jamaica, intended for the supply of the neighbouring continent, to which shipments are now made direct from this country.

It will be seen that the value of our exports to India and China did not experience any increase until after the partial opening of the trade in 1814. Since that time, and particularly since 1826, a considerable improvement has taken place in the amount of our commerce with India; so that, contrasting its amount in 1849 with that in 1814, there is found an increase of more than 190 per cent. The recent opening of the trade with China is calculated to add still more importantly to the value of our commerce with that quarter of the world. Although this trade at first might be accompanied by losses to those who engaged in it without possessing the requisite degree of knowledge, it could not be doubted that a few years' experience on the part of our merchants would enable them to draw very great advantages from commercial intercourse with a people so enterprising and so keenly alive to the benefits resulting from foreign trade as the Chinese are now allowed to be. Already the consumers

in this country have benefited by the opening of the trade with China, in the greatly diminished price of an article of general and daily consumption; and there is every reason to hope that the individual skill and enterprise now directed to this trade will succeed in making continual additions to its amount, until it bears a more reasonable proportion than it has hitherto done to the trading capabilities of the inhabitants of that thickly-populated country. This trade was thrown open on the expiration of the East India Company's Charter in April, 1834. Since that time the declared value of English manufactures exported to China has been—

Years.	£.	Years.	£.	Years.	£.
1834	842,852	1840	524,198	1845	2,394,827
1835	1,074,708	1841	862,570	1846	1,791,439
1836	1,326,388	1842	969,381	1847	1,503,969
1837	678,375	1843	1,456,180	1848	1,445,959
1838	1,204,356	1844	2,305,617	1849	1,537,109
1839	851,969				

Previously to 1834 no distinction had been made in the Custom-house records between the exports to India and those made to China, nor will this deficiency of information be supplied by the statement of the amount of shipping employed in the trade, because a great part of the trading intercourse of British subjects with China is carried on through the intermediate ports of India; and this was the case to a greater degree formerly than it is at present. As the best source of information that is open to us upon this subject, the following statement is given, showing the number and tonnage of vessels that cleared out from the United Kingdom, for China, and that entered inwards from that kingdom, in each year from 1830 to 1849:—

Years.	OUTWARDS.						INWARDS.	
	British.		Foreign.		Total.		British.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1830	16	21,033	2	789	18	21,822	22	27,782
1831	22	28,081	3	1,126	25	29,207	21	27,889
1832	19	24,648	2	794	21	25,442	20	25,237
1833	25	29,627	3	1,087	28	30,714	21	27,985
1834	16	8,887	4	1,476	20	10,363	30	29,308
1835	23	21,218	..	..	23	21,218	67	35,427
1836	38	24,099	..	..	38	24,099	80	40,686
1837	26	17,694	2	872	28	18,566	62	32,212
1838	31	16,175	3	1,510	34	17,685	58	32,333
1839	19	10,404	2	1,113	21	11,517	47	26,261
1840	10	2,942	3	1,082	13	4,024	34	20,056
1841	31	13,738	3	1,381	34	15,119	52	23,344
1842	63	28,297	2	1,067	65	29,364	73	32,818
1843	73	32,298	3	1,690	76	33,988	84	39,712
1844	78	32,534	5	2,110	83	34,644	104	45,605
1845	86	34,391	4	1,396	90	35,787	121	51,802
1846	78	31,620	4	2,404	82	34,024	123	53,593
1847	73	29,605	6	3,095	79	32,700	125	51,948
1848	70	28,984	5	2,434	75	31,418	95	41,599
1849	71	28,869	3	1,472	74	30,341	98	44,408

The discriminating duties which, until lately, have been charged upon certain articles of East India produce, naturally tended to prevent increase in that branch of our trade. A wiser policy is now recognised and followed, and will no doubt be productive of solid advantages to the people of this country, as well as to the natives of Hindustan. The capabilities of that vast region are hitherto but very imperfectly known in Europe; and, indeed, until the Act of 1833, which prohibited the East India Company from trading, and which gave to British-born subjects the right to settle for commercial and agricultural purposes in British India, there was but little inducement to cultivate that field of inquiry. Since that right has been conceded, the attention of the public has been forcibly drawn to the subject. A committee of gentlemen conversant with the capabilities of India, and well informed as to the trading and manufacturing wants of England, was employed for some years upon this subject, under the auspices of the Royal Asiatic Society; and it is confidently hoped, that through the exertions of the gentlemen forming that committee, many branches of industry may be fostered in India, which will afford supplies to our artisans of several articles better in quality and at a less cost than the same goods, or substitutes for them, are now procured from other countries. Nor is it only by the encouragement of new branches of commerce that the two countries are to experience benefit. Much may be done to give encouragement to the production and transmission of articles already imported. The discriminating duty so long continued upon East India sugar, for the advantage of the West India planters, has been repealed; and we now have reason to know that the application of British skill and capital, for the manufacture of sugar in India, can be employed successfully in producing improvement in its quality, so as to make it serve every purpose to which the produce of the West Indies used to be exclusively applied. There is, perhaps, no one circumstance that would tend so much to increase the commerce of India as the opening of good roads. The course of the great rivers is at present available, at least during part of the year, for the conveyance of Indian products towards the coast; but this means of transport is of but little avail for the return trade; and even the partial facility of water conveyance is confined to only a small part of the peninsula. Good roads would be practicable at all periods of the year, and in every part of the country; and would be equally available for the transmission of English goods to the inner and upper provinces of India, as for the conveyance of their products to the coast. This improvement is especially needed in some of the cotton-yielding districts, where the present expensive mode of conveyance upon the backs of oxen acts most injuriously, by enhancing the cost of an article which it is of the utmost importance to our Lancashire manufacturers to receive as abundantly and at as cheap a rate as possible. As a political

measure, the construction of roads in India would prove highly advantageous. Their cost would be quickly and amply repaid by the improving revenues of the country, and by the grateful feelings that would be raised on the part of the native population. The inhabitant of Western Europe, who has always been accustomed to have brought to his door every article that he can desire, and that his means can purchase, can have but a faint idea of the various privations experienced by great multitudes of the inhabitants of Hindustan, and it may be confidently said that the Government that should place within the reach of the poor cultivators an ample supply of salt,—an article, the obtaining of which never costs us a thought,—would be sure to receive the blessings of millions. It has been stated by a gentleman, acquainted, by long residence in different parts of India, with the practices and capabilities of the country, that the difference in the cost of transporting goods along the present ill-formed roads in the rude carts or *hackerys* of the natives, is less by six-sevenths than the cost of conveyance on the backs of oxen—a course so commonly rendered necessary through the absence of everything to which the name of a road can be applied. In the level plains of Candeish, and in many other parts of Hindustan, cotton-wool, freed from the seed, could be sold on the spot with a profit to the cultivators at one penny per pound,—a cost which is trebled or quadrupled by the expense of conveyance to the ports of shipment.

A discriminating duty at the rate of 28*s.* per cwt., or 50 per cent., was, until lately, imposed upon coffee, the growth of the British possessions in India, for the presumed benefit of the planters in our Western Colonies. Until 1825, this discriminating duty amounted to 56*s.* per cwt., but was at that time comparatively but little felt, because, owing to the excessive duty levied upon all descriptions of coffee, the consumption of the kingdom was below the supply obtained from our West India colonies, and as the surplus had to seek a market in foreign countries, the prices of every description of coffee were necessarily governed by the demands of the world in general. In the year just mentioned the duties previously levied upon all kinds of coffee were reduced to one-half. The produce of the British plantations in America, thenceforward until 1842, was admitted to consumption at the rate of 6*d.* per lb., or 56*s.* per cwt. East India coffee from British possessions was charged 9*d.* per lb., or 84*s.* per cwt., and all other kinds were charged 1*s.* 3*d.*, or 140*s.* per cwt., amounting to a prohibition against their consumption. In 1842, the duty on coffee from all British possessions was reduced to 4*d.* per lb., and all other coffee was admitted at 8*d.* per lb. until 1844, when the duty on foreign coffee was lowered to 6*d.* per lb. The consequence of the reduction in 1825 was to increase the annual consumption of coffee from about 8,000,000 lbs. in 1824 to 22,000,000 lbs. in 1830, which increase, as might be expected, occurred

almost entirely with the produce of our West India colonies, and as the power of production in these colonies is limited, and by this increased demand consumption had overtaken that limit, the price of West India coffee was driven up to a rate so high that the difference of 28*s.* per cwt. did not prevent the use of an increased quantity of the produce of our Indian possessions. The price of fine Jamaica coffee, which at the time the duty was reduced was about 90*s.* per cwt., advanced, through the demands of the consumers, to 125*s.* per cwt., but without producing any increased production. The quantity annually imported of British plantation coffee, in the five years that preceded the reduction of the duty in 1825, averaged 30,280,360 lbs., and the average quantity imported in the five years from 1832 to 1836 reached only 19,812,160 lbs., being a reduction of 34 per cent. in the supply, notwithstanding an advance of 39 per cent. in price, thus proving beyond all cavil the inability of the West India planters to keep pace with the wants of the English consumers. In September, 1835, our tariff was so far modified, that coffee imported from the British possessions in India, if accompanied by a certificate of its being the actual produce of those possessions, was admitted to consumption, on payment of the same rate of duty as British plantation coffee. The quantity of East India coffee taken for consumption while the duty remained at 9*d.* per lb., advanced, because of the increasing price of West India coffee, as already noticed, from about 300,000 lbs. per annum, to about 1,500,000 lbs. The assimilation of the rates of duty did not take effect until two-thirds of 1835 had elapsed, but in that year the consumption of East India coffee advanced to 5,596,791 lbs., and in 1837 reached 9,114,793 lbs. A few years must necessarily elapse before the production of coffee can be increased in any particular place; but experience has proved that there was good reason to expect that the stimulus thus afforded would not be checked in our Eastern, as it has been in our Western possessions, through natural causes, and that continually growing supplies might be furnished, until the English public should no longer be forced to pay a monopoly price for this agreeable article of food. That time has now arrived. The importations of coffee from our own possessions has gone beyond the wants of the consumers, and the protecting duty still offered by the tariff has ceased to operate in favour of the colonial grower. The quantities received from Ceylon, which in 1835 were under 2,000,000 lbs., exceeded 35,000,000 lbs. in 1849.

If the sound principles, that no duties should be levied except for purposes of revenue, and that it is both unjust and unwise to tax the whole community for the supposed benefit of a part, were recognised and fully acted upon, so that the price of any important article were not enhanced by means of the duty in a greater degree than the actual amount of the duty, there can be no doubt of the advantages that would

result to the country at large, through all its various interests, by the increased activity that would be imparted to its foreign commerce.

Much has been done during the last few years, beyond what has been already particularly noticed, to simplify our tariff and to reduce or abolish duties charged upon the raw materials of manufacture, and there is every reason for believing that the subsequent extension of our foreign trade has been mainly owing to that cause. There is still something to be done in this way. The two great monopolies of corn and timber, the first maintained for the assumed benefit of the possessors of land, the second conceded to the clamour of a certain class of ship-owners, although importantly modified since the first publication of this work, were, when the last edition of it appeared, the chief remaining obstacles to the growth of our commercial relations with European nations. The most grievous of those two monopolies, that which condemned the people to pay more for their food than was paid by the inhabitants of other countries, has at length been swept away, and there are strong grounds for believing that the duty on timber, which is essentially a raw material of the greatest importance to every branch of manufacture, must shortly be wholly abolished also.

It is a mistake to suppose, as generally is done, that the high discriminating duty upon timber was originally imposed for the benefit either of the North American colonists, or of the English ship-owners; neither the one nor the other of those parties was thought of in the business any further than as they might be made the means of relieving the consumers of timber in this country from the evil consequences resulting to them through our exclusion from ports in the Baltic. The discriminating duty was not intended to have been continued after the necessity out of which it arose should have passed away with the return of peace. The duty upon a load (fifty cubic feet) of European timber, which at the beginning of the war had been 6*s.* 8*d.*, was raised by inconsiderable steps to 27*s.* 2*d.*, in 1806; this rate was doubled in 1811, and in 1813 the duty was further advanced to 65*s.* Colonial timber was admitted free of duty up to 1798, when it was subjected to 3 per cent. *ad valorem*; from 1803 to 1806 the *ad valorem* rate was changed to a specific duty of about 2*s.* per load, and in the latter year was again altogether removed. In 1821, in consequence of the recommendations of Committees of the two Houses of Parliament, the system was so far altered that the rate upon European timber was reduced to 55*s.*, while upon colonial timber a duty was imposed of 10*s.* per load, and those rates were continued to the year 1840, when 1*s.* 6*d.* per load was added to them respectively. In October, 1843, the duties were reduced to 25*s.* per load on foreign timber, and 32*s.* per load on foreign deals, and to 1*s.* per load on timber, and 2*s.* per load on deals the produce of British possessions. Further modifications of the duties upon foreign

timber were adopted in the session of 1846, so that on the 5th of April, 1847, unsawn wood was admitted at 20*s.*, and deals and battens at 26*s.* per load; which rates were further reduced on the 5th of April, 1848, to 15*s.* and 20*s.* respectively.

The colonial timber trade cannot be said to have existed previous to 1803. In the fifteen years that occurred from 1788 to 1802, while our importations of European fir timber amounted to nearly 3,000,000 loads, we imported from the American colonies only 19,429 loads. In 1803 the quantity so imported was 10,113 loads, but from that time it increased rapidly; first from the stimulus of high prices occasioned by the events of the war, and afterwards in consequence of the greater preference given to colonial timber by our tariff. The price of Memel timber, which in 1802 had been 78*s.* per load, with a duty of 16*s.* 10*d.*, advanced in 1807 to 150*s.*, and in 1809 to 320*s.*, the duty having in the mean time been raised to 27*s.* 2*d.*, as above stated. Under these circumstances, it might perhaps be wise to stimulate the importation of colonial timber; but so soon as the return of peace again opened to us our old channels of supply, there could be no good reason for burthening the people with a heavy tax, only a small part of which found its way to the Exchequer, and all that could with propriety have been asked by the parties who had embarked their capitals in the new trade was a reasonable term during which they might withdraw from its prosecution.

That the changes here noticed in our duties for protection have not been productive of evil to the colonial wood trade is made evident by the quantities since imported from our American possessions, and from foreign countries:—

Years.	Colonial. Loads.	Foreign. Loads.	Imported. Loads.
1843	922,087	395,558	1,317,645
1844	941,221	544,136	1,485,357
1845	1,281,974	675,840	1,957,814
1846	1,214,442	810,497	2,024,939
1847	1,086,070	809,752	1,895,822
1848	1,102,254	701,080	1,803,634
1849	1,047,320	580,372	1,627,692

In every civilized country timber is an article of consumption of the very first necessity, and where, as in this country, our forests do not supply it in the necessary abundance, its importation should be rendered as free as possible. If, through the necessities of the Government, it should be found necessary to tax this, which may be called one of the chief raw materials of manufacture, without which, in fact, scarcely any other manufacture could be carried on, it would be some consolation to know that the tax answered its legitimate purpose, and perhaps stood in the place of some other equally objectionable impost. Owing, however, to the discriminating duties in favour of the timber of our northern colonies, a sum at least equal to the amount that now finds its way

under this head to the Exchequer is lost to the public, its only use being to afford employment to a number of old and worn-out ships, which it would be more advantageous to the country to buy, and then break them up and sell their materials for fuel, than it would be to continue the present modified system.

Owing to the mode employed up to 1843 for calculating the duties upon planks, deals, and battens, which were taxed by the great hundred in classes, according to certain specified limits of dimension, it was not easy to estimate the actual quantity of wood brought for consumption into the country. Such an estimate was carefully made at the Custom-house with reference to the importations of 1833, and from this it appears that the quantity imported that year, expressed in loads, amounted to 1,163,518, and the duty collected to 1,285,379*l.*, being at the average rate of 22*s.* 1¼*d.* per load. If the duty upon the whole of this quantity had been charged at the rate imposed upon European timber, the proportion brought from the colonies would no doubt have been reduced, and the supplies from the Baltic must have been proportionally increased, by which means the price in the countries of production would have been raised, and this circumstance would so far have acted in diminution of the advantage accruing to the country through the greater receipts at the Exchequer; but when an ample allowance has been made on this account, it will be found that the loss to the public at large, through adherence to the present system, amounted to nearly or quite one million and a half of money in that one year. The importations in the years that have since elapsed have been much greater than those of 1833, and the loss was consequently for some years still more than the sum here mentioned. It is the opinion of well-informed men, who were examined before the Select Committee of the House of Commons which sat in 1835 to consider this subject, that by a return to a more wholesome state of the trade, the price in the countries of production in Europe would be raised only temporarily, and that so soon as time had allowed of the erection of new saw-mills, and of other arrangements necessary for an enlargement of the trade, the price would again subside to its former and natural level, the supply of growing timber in those countries being equal to any demand that could possibly arise by that means.

But if these gentlemen should have taken too sanguine a view of the capabilities of the various countries to which we have hitherto and formerly resorted for a supply of timber, there are other districts to be explored into which the woodman's axe has never yet penetrated, with a view to the supply of Western Europe, whence we may draw supplies for ages to come of a quality equal to everything that can be wished, and adapted to purposes which it is now difficult to satisfy. From the forests of Albania, as well as those of Circassia, and all the coasts of the Black Sea and the banks of the Danube, we may—if political, and

still more, if fiscal obstacles are removed—draw inexhaustible supplies of the finest wood, including oak of the largest size, and at prices more advantageous than any other countries have offered, at least in modern times.

Under these circumstances, we are, without any adequate or legitimate motive, shutting against our manufacturers markets which were formerly, and would be again, of considerable importance to them, and are at the same time giving advantages to our manufacturing rivals, of which they are by no means slow to avail themselves.*

The official value of goods imported has a nearer agreement with the actual value than has been maintained between the official and the actual values of British manufactured goods exported. The greater part of our importations consists of produce in its raw or unmanufactured state, or of products in a state of preparation which has not called for any great amount of labour, and as to which there is, consequently, but little room for economizing the cost. Our exports, on the contrary, consist in great part of goods upon the preparation or manufacture of which a great amount of labour has been expended; and as the mechanical inventions of the last fifty years have introduced the most important degrees of economy into nearly every process of manufacture, the prices of such goods fixed 180 years ago have become exceedingly wide of their true value. The error which might thus have been exhibited by the Custom-house returns, has been rectified by the plan of obliging the merchants at the time of shipment to declare the real value of British goods exported. The only course effectual for correcting the error in valuation in the case of foreign goods imported, would be to contrast the quantities so brought into the country at various periods. Such an account it is impossible to present; if even it were procurable, its bulk would prevent its insertion in these pages, and to render it a faithful record it would be necessary to accompany it by many voluminous explanatory statements.

The opening of the present century found this country involved in war, but at the end of 1801 the Peace of Amiens was signed, and it will be seen (Table, page 356) that the value of British goods exported in 1802 exceeded by more than 5,000,000*l.*, or 13 per cent., the value exported in 1801. The recurrence of war in 1803 put an end to this improvement, and brought our exports below the amount of 1801. We have not the means of analyzing our foreign commerce in any year earlier than 1805, but in that and the two following years it will be remarked that very nearly one-third of our foreign export trade was carried on

* The full merits of this very important question may be learned by consulting the evidence given before the Committee of 1835, referred to in the text, and also from an article in the fourth number of the "British and Foreign Quarterly Review," which was written by one of the most intelligent witnesses examined on that occasion—the late Mr. J. D. Hume.

with the United States of America. Under the then existing circumstances of the country, with the ports of the Continent shut against us as completely as the power of Napoleon enabled him to accomplish that object, this trade was of peculiar importance to us, not only because it gave employment to our manufacturing population, but also because it provided us with the means of meeting the foreign expenditure of the Government occasioned by the operations of the war. The merchants of the United States were at that time accustomed to sell their produce in the continental markets to a much greater amount than their purchases in those markets; while, in their dealing with this country, the practice was directly the reverse, and they had every year a large balance to pay to this country. The means of liquidating this balance were furnished by the excess of their continental sales, the amount of which was paid to the agents of the English Government for bills upon the Treasury, which came as a remittance to our exporting merchants, and thus were funds placed at the disposal of our armies, and the payment of subsidies was accomplished which must otherwise have drained this country of every guinea which it possessed. At the end of 1806, Napoleon aimed an additional and severe blow at this country by means of his famous Berlin decree, whereby he declared all the ports of Great Britain in a state of blockade, and forbade all trading with us or in the articles of our produce and manufactures, declaring such to be subject to seizure and condemnation wherever they were found, and forbidding the importation into the countries under his control, which then included nearly all continental Europe, of any goods of such kinds as were included among the home or colonial productions of this country, unless they should be accompanied by certificates showing their origin to have been other than British. The consequent measures of retaliation adopted by the English government, were so far from averting the evil consequences of this Berlin decree, that they proved directly and immediately injurious to our trade, in a greater degree than all the efforts of the enemy would probably have succeeded in accomplishing. Our Orders in Council, issued in the course of 1807, served indeed only to give efficacy to the paper blockade of Napoleon, against which the whole trading community of the world would have been arrayed but for the notable expedient of the English Government. By these Orders in Council it was declared, as the only condition upon which neutrals might trade with countries not at peace with Great Britain, that the vessels in which that trade was carried on should touch at some port in this country, there to pay such amount of Customs duties as should be imposed by the British Government, and any vessel found to have on board the certificate of origin required by the French Government was declared lawful prize. In answer to these Orders in Council, Napoleon issued his decree from Milan, dated 27th September, 1807, in which it was declared that any ship that

should have paid any tax to the British Government, or that had submitted to be searched by any British authorities, was thereby *denationalized*, and became good and lawful prize; and in order to give full effect to this decree, it was provided that any person on board a foreign vessel arriving at a port in France, who should notify to the authorities the fact of such vessel having visited an English port, or of its having submitted to be searched, should be entitled to receive one-third of the net value realized from the sale of the vessel and cargo. Further to circumvent the designs of the French Government, a system of providing neutral vessels with forged papers, by means of which they might elude the vigilance of the French authorities, was encouraged by the English Government; and thus in spite of all the hazard attending this course of very questionable morality, a considerable amount of trade was carried on in vessels bearing the flag of Pappenburg, Oldenburg, and other petty continental powers. Such an expedient was clearly not one which the government of the United States of America could adopt for the prosecution of trade with Europe; and finding that the American flag was thus effectually excluded from the ports of the Continent, that government interdicted altogether the trade of its subjects with either of the belligerents, first, by blockading her own ports, and next, by a law forbidding intercourse with the belligerents, while it allowed of trade with other parts of the world, and which provided for the renewal of trading relations with either of the interdicted nations which should rescind its obnoxious regulations. The return to wisdom, in this respect, was first evinced by France, and war was declared against this country by the United States.

It will be clear, from the preceding recital, that the great advantages which we had derived from our trade with America, as already described, must have ceased when the blockade of their ports was enforced; and accordingly we find that the amount of our exports became altogether inadequate to meet our public expenditure abroad, the foreign exchanges turned ruinously against this country, and the drain of the precious metals was such that the price of gold rose from 80*s.* per oz., at which price it had been stationary during the six preceding years, to 91*s.* per oz. in 1809, to 97*s.* 6*d.* in 1811, to 105*s.* in 1812, and to 110*s.* in 1813; these prices being respectively 14, 20, 25, and 29 per cent. above the Mint price of 77*s.* 10½*d.* per oz. During this period the evil consequences of this state of things was aggravated by the great quantities of foreign goods, beyond the wants of the consumers, that were accumulated in our warehouses, and for which no market could be found. These goods were either actually the property of English merchants, having been received in return for manufactures exported, or were virtually so through advances made to the owners, in addition to the freight, insurance, and other charges which had been incurred upon them. Such

of our manufacturers as had the means of doing so, had accumulated large stocks of goods in their stores, but one after another their means of employing workmen fell off, so that in the beginning of 1811 the state of distress among all the trading classes had arisen to a most alarming height; meetings were held in the city of London to consider as to the course to be pursued to mitigate the evil, and a Select Committee of the House of Commons was appointed with the same view. The distress was partially alleviated by the issue of Exchequer bills on loan to the merchants, but effectual relief was not obtained until the tide of prosperity began to turn away from the ruler of France, and the continental nations casting off the shackles in which he had bound them, leagued together in alliance with England, for the recovery of their independence: their ports were then of course open to our commerce, and the goods which had been accumulating in our docks and warehouses were distributed to willing purchasers.

The desire of obtaining British manufactured goods and colonial produce was exhibited on the part of the inhabitants of the Continent in a remarkable manner during the years which immediately followed the promulgation of the Berlin decree. This scheme for the destruction of our trade was not confined to France, but was adopted likewise by the governments of Austria, Prussia, the States of the Germanic Confederation, Russia, Holland, and the Italian States, then leagued with France against this country; and neither trouble nor precaution was spared in order to ensure its complete adoption. So great, however, was the desire of obtaining the prohibited articles, that all the efforts of the French Commissioners were of little avail, and the export trade of the country was maintained during the years in which the continental system was enforced, at a level nearly as high as it had previously acquired. The well-informed author of a pamphlet, published in 1835, entitled 'England, Ireland, and America,' says, when speaking on this subject:—"It would be amusing, and full of romantic interest, to detail some of the ten thousand justifiable arts invented to thwart this unnatural coalition, which, of necessity, converted almost every citizen of Europe into a smuggler. Bourienne, who was himself one of the Commissioners appointed to enforce these prohibitions at Hamburg, gives some interesting anecdotes in his Memoirs under this head. The writer is acquainted with a merchant who was interested in a house that employed 500 horses in transporting British goods, many of which were landed in Sclavonia, and thence conveyed overland to France, at a charge of about 28*l.* per cwt., more than fifty times the present freight of merchandise to Calcutta!" In the plenitude of his power, Napoleon was unable to prevent the clandestine introduction and sale of English [illegible] in the very capital of his empire; he was, besides, led occasion- [illegible]lax the system so far as to grant licenses for the introduction

of British and colonial goods. Those licenses, which were given to some favoured individuals among his staff and court, were sold to the merchants; and it has been stated, that as much as a million of francs—40,000*l.*—has been realized from the sale of one of these commercial indulgences.

It has been often brought as matter for reproach against the ministry of that day, that in the negotiations at Vienna, which followed the downfall of Napoleon, the commercial interests of this country were heedlessly abandoned. It can hardly be denied that the minister by whom England was represented at the Congress of Vienna, knew but little, and cared as little, about commercial matters; and that certain of the better-informed diplomatists of other countries were not backward to take advantage of his ignorance and supineness. Conquests, which offered wide and improving fields for commercial and manufacturing enterprise, were given up as it were through complaisance; and the whole subject of trade was abandoned, apparently lest the pursuit of what might be called our selfish interest should tarnish the laurels we had gathered in the fields of slaughter. The amount of the sacrifices thus made it would be impossible to estimate; but at however high an amount they may be reckoned, it is probable that we have since suffered far more through our long persistence in a system of restriction and prohibition. This, although it might have been comparatively inoperative during the period of war, could not fail to be viewed with jealousy and anger so soon as peace enabled other nations to turn their attention to foreign commerce. The pertinacity with which we so long adhered to our navigation laws, and the numerous anti-social vices that were suffered to deform our tariff, were calculated to foster this spirit of jealousy on the part of others, and to provoke them to acts of retaliation, from which we, as the most commercial nation, were sure to be the greatest sufferers. The ministry of that time was supported in this adherence to a system of restriction by many commercial men, whose modes of business being adapted to that system, they dreaded lest its relaxation might be followed by personal loss to themselves; and it was their endeavour, in which they too well succeeded, to persuade the Government and the legislature that any change of system must tend to destroy the foreign commerce of the country. It has been, unfortunately, the common practice in this country, when legislating upon commercial matters, to consider the interests of the merchants actually engaged in its prosecution, and not the advantage of the trade itself, which is always best promoted by attention to the interests of the consumers, rather than by assisting the merchants to obtain, by means of what is called protection, an unnatural rate of profit.

The narrow views which have been here explained were not universally held by mercantile men. In the year 1820 a considerable number

of the most wealthy and enterprising houses in London joined in a petition to the House of Commons, embodying principles, the justice and liberality of which will assure to them the assent at all times of enlightened men, and reference will long be made to this petition as to the deliberate opinions of practical and experienced merchants upon points which they are peculiarly fitted to understand.

This petition was in the following terms:—

"To the Honourable the House of Commons of the United Kingdom of Great Britain and Ireland.

"The humble Petition of the undersigned Merchants of the city of London,

"Sheweth,—That foreign commerce is eminently conducive to the wealth and prosperity of a country by enabling it to import the commodities for the production of which the soil, climate, capital, and industry of other countries are best calculated, and to export in payment those articles for which its own situation is better adapted.

"That freedom from restraint is calculated to give the utmost extension to foreign trade, and the best direction to the capital and industry of the country.

"That the maxim of buying in the cheapest market, and selling in the dearest, which regulates every merchant in his individual dealings, is strictly applicable as the best rule for the trade of the whole nation.

"That a policy founded on those principles would render the commerce of the world an interchange of mutual advantages, and diffuse an increase of wealth and enjoyments among the inhabitants of each state.

"That, unfortunately, a policy the very reverse of this has been, and is, more or less, adopted and acted upon by the Government of this and of every other country, each trying to exclude the productions of other countries, with the specious and well-meant design of encouraging its own productions; thus inflicting on the bulk of its subjects, who are consumers, the necessity of submitting to privations in the quantity or quality of commodities; and thus rendering what ought to be the source of mutual benefit and of harmony among states, a constantly-recurring occasion of jealousy and hostility.

"That the prevailing prejudices in favour of the protective or restrictive system may be traced to the erroneous supposition that every importation of foreign commodities occasions a diminution or discouragement of our own production to the same extent; whereas it may be clearly shown, that although the particular description of production which could not stand against unrestrained foreign competition would be discouraged; yet as no importation could be continued for any length of time without a corresponding exportation, direct or indirect, there would be an encouragement, for the purpose of that exportation, of some

other production to which our situation might be better suited; thus affording at least an equal, and probably a greater, and certainly a more beneficial employment to our own capital and labour.

"That of the numerous protective and prohibitory duties of our commercial code, it may be proved, that while all operate as a heavy tax on the community at large, very few are of any ultimate benefit to the classes in whose favour they were originally instituted, and none to the extent of the loss occasioned by them to other classes.

"That among the other evils of the restrictive or protective system, not the least is, that the artificial protection of one branch of industry or source of production against foreign competition, is set up as a ground of claim by other branches for similar protection; so that if the reasoning upon which restrictive or prohibitory regulations are founded were followed out consistently, it would not stop short of excluding us from all foreign commerce whatsoever. And the same train of argument, which, with corresponding prohibitions and protective duties, should exclude us from foreign trade, might be brought forward to justify the re-enactment of restrictions upon the interchange of productions (unconnected with public revenue) among the kingdoms composing the union, or among the counties of the same kingdom.

"That an investigation of the effects of the restrictive system, at this time, is peculiarly called for, as it may, in the opinion of the Petitioners, lead to a strong presumption that the distress which now so generally prevails is considerably aggravated by that system; and that some relief may be obtained by the earliest practicable removal of such of the restraints as may be shown to be most injurious to the capital and industry of the community, and to be attended with no compensating benefit to the public revenue.

"That a declaration against the anti-commercial principles of our restrictive system is of the more importance at the present juncture, inasmuch as in several instances of recent occurrence, the merchants and manufacturers in foreign states have assailed their respective governments with applications for further protection or prohibitory duties and regulations, urging the authority and example of this country, against which they are almost exclusively directed, as a sanction for the policy of such measures. And certainly, if the reasoning upon which our restrictions have been defended is worth anything, it will apply in behalf of the regulations of foreign states against us. They insist upon our superiority in capital and machinery, as we do upon their comparative exemption from taxation, and with equal foundation.

"That nothing would more tend to counteract the commercial hostility of foreign states than the adoption of a more enlightened and more conciliatory policy on the part of this country.

"*That although, as a matter of mere diplomacy, it may sometimes answer to hold out the removal of particular prohibitions, or high duties, as depending upon corresponding concessions by other states in our favour, it does not follow that we should maintain our restrictions in cases where the desired concessions on their part cannot be obtained. Our restrictions would not be the less prejudicial to our own capital and industry, because other governments persisted in preserving impolitic regulations.*

"That, upon the whole, the most liberal would prove to be the most politic course on such occasions.

"That independent of the direct benefit to be derived by this country on every occasion of such concession or relaxation, a great incidental object would be gained by the recognition of a sound principle or standard to which all subsequent arrangements might be referred, and by the salutary influence which a promulgation of such just views by the legislature, and by the nation at large, could not fail to have on the policy of other states.

"That in thus declaring, as your Petitioners do, their conviction of the impolicy and injustice of the restrictive system, and in desiring every practicable relaxation of it, they have in view only such parts of it as are not connected, or are only subordinately so, with the public revenue. As long as the necessity for the present amount of revenue subsists, your Petitioners cannot expect so important a branch of it as the Customs to be given up, nor to be materially diminished, unless some substitute, less objectionable, be suggested. But it is against every restrictive regulation of trade not essential to the revenue—against all duties merely protective from foreign competition—and against the excess of such duties as are partly for the purpose of revenue, and partly for that of protection,—that the prayer of the present Petition is respectfully submitted to the wisdom of Parliament.

"Your Petitioners therefore humbly pray, that your honourable House will be pleased to take the subject into consideration, and to adopt such measures as may be calculated to give greater freedom to foreign commerce, and thereby to increase the resources of the State."

With the single exception of the passage printed in italics, the foregoing petition is highly honourable to the accomplished economist* by whom it is understood to have been drawn up, and to the many eminent merchants by whom it was subscribed. It may be fairly admitted that the light which it has thrown on, and the attention which it has been the means of drawing towards, the subject, have tended in a powerful manner to bring about the successive relaxations which, since its presentation to Parliament, have been made in our commercial code. The

* Mr. Thomas Tooke.

degree of success by which it has thus been followed, must make it a matter of great regret that it should contain anything capable of being perverted to an opposite end. The author of the petition would be among the first to disclaim the advocacy of any disingenuous diplomacy, fortifying himself in this disclaimer by the whole tenor of the document, and especially by the qualifying clause that follows the objectionable paragraph. It is unfortunate, however, that the course of proceeding which it suggests has in many instances been since adopted by the English Government. It has been seen on these occasions that, by the relaxation of some restriction, or the abolition of some protective duty, a positive good would arise to the trade of this country; but it has been seen, at the same time, that this reform would be also beneficial to the commerce of some other country; and it has been thought desirable to render the relaxation doubly profitable to ourselves, by making it the equivalent for some corresponding relaxation in favour of English commerce on the part of the country that would participate in the improvement. From some cause or other,—probably the misconception of our motives, or the fear of being overreached,—it has generally happened that it has been thought unwise to grant the price we have demanded for the alteration, and we, having made our relaxation dependent upon the payment of that price, no longer feel ourselves at liberty to persevere to our own profit in a course which we should otherwise be glad to adopt.

To illustrate this matter, let us suppose that our Government should become convinced, through the successful operations of the smuggler, that the present duty (1838) of 22*s.* 6*d.* per gallon upon foreign spirits is injuriously high—that by reducing it to one-half that rate the revenue would be benefited, and the foreign trade of the country increased. Such a reduction would be manifestly to the advantage of France, and our Government would be expected and urged to demand from that country some equivalent concession—such, for example, as the admission of our cotton manufactures at moderate rates of duty. A negotiation to this end being opened, the reduction on our part may be made to depend upon our obtaining the concession demanded of the French Government. If this should be granted, there can be no doubt but that the joint benefit would be greater than that to be drawn from the simple reduction of the duty on foreign spirits; but how many circumstances are there which may oppose themselves to the granting of the concession demanded from our neighbours? Their Government may be indisposed to make it, from imagining that the war of the smuggler against our revenue would of itself soon compel our legislature to make the proposed reduction; or the "protected" cotton-manufacturers of France may prove too powerful, and may influence the rejection of the treaty. From some cause or other the restriction against our manufactures may be continued, and in that case the dignity of our Governmen

will not allow it to proceed in the business, until the loss to the revenue may have reached a pitch which can be no longer borne.*

When communities in general shall become more enlightened, in regard to the principles that should regulate commerce, such negotiations as that above described can never occur. Commercial treaties will then be unknown, because each country will be led to adopt plans that will be of advantage to itself, unchecked by the consideration that some part of that advantage may be shared by others; and not only so, but will be induced the more readily to pursue those plans for the very reason that others will participate in the benefit, assured that the prosperity of its neighbours must always have a beneficial influence upon its own condition.

The part of our restrictive system which was viewed with the greatest favour among all classes, was embodied in the measure generally known under the name of the Navigation Act. The foundation of this Act was laid during the Protectorate, and the system was perfected by the 12 Charles II., chap. 18. This Act provided, that no merchandise of either Asia, Africa, or America, should be imported into Great Britain in any but English-built ships, navigated by an English commander, and having at least three-fourths of their crew English. Besides this exclusive right imparted to British shipping, discriminating duties were imposed, so that goods which might still be imported in foreign ships from Europe were in that case more highly taxed than if imported under the English flag. The system here described continued to be steadily and pertinaciously maintained during more than 160 years, and was looked upon as a monument of wisdom and prudence, to which was mainly attributable the degree of commercial greatness to which we had attained. May we not hope that, with the present amount of our knowledge, it would be difficult to arrive at any such conclusion, or to believe that the trade of any country could possibly be promoted by compelling the merchants to employ dear instead of cheap ships? The earliest deviation from the Navigation Act that was sanctioned by Parliament, arose out of the treaty with the United States of America, in 1815. The States, soon after the establishment of their independence, had passed a navigation law in favour of their shipping, similar in all its main provisions to the English law; and it affords an instructive lesson, that the practical carrying out of this restrictive system to its fullest extent by the two nations was found to be so unproductive of all good effect, as to call for its mutual abandonment. By this treaty, the

* Since 1838, the duty on brandy (having been intermediately raised to 22*s.* 10*d.*) has been (March, 1846,) reduced to 15*s.* per gallon, and the consumption, which in 1838 was 1,203,435 gallons, yielding 1,353,614*l.* to the revenue, advanced in 1849 to 2,187,500 gallons, producing a revenue of 1,639,463*l.*, not any equivalent having been required from the Government of France.

ships of the two countries were placed reciprocally upon the same footing in the ports of England and the United States, and all discriminating duties chargeable upon the goods which they conveyed were mutually repealed. It adds greatly to the value of this concession, that it was made by no disciple of free-trade doctrines, but was forced by the very consequences of the system itself, from a Government strenuously opposed to all change in the direction of relaxation. From that moment it became easy to foretel the abandonment of our long-cherished system of protection, since every country that desired to remove the disadvantage under which we had placed its trade or shipping, had it thenceforward in its power, by adopting our plans in the spirit of retaliation, to compel us to a relaxation of our code. It is worthy of remark that, amidst all the complaints that have been made by British shipowners, of the abandonment of their interests by their Government, it has never been attempted to question the propriety of the American treaty, nor to complain of its results.

With the exception here noticed, the restrictive system was continued in full force until 1822, when Mr. Wallace, then President of the Board of Trade, introduced five bills which effected a very important alteration. Of these bills (3 Geo. IV., cc. 41, 42, 43, 44, and 46) the object of the first was to repeal various obsolete statutes that were enacted in relation to foreign commerce before the passing of the Navigation Act. The second bill repealed various laws dating from the Navigation Act downwards, including those parts of the Navigation Act itself which enacted that goods of the growth, produce, or manufacture of Asia, Africa, or America, should not be imported into this country, except in British ships navigated as already described, and that no goods of foreign growth, production, or manufacture, shall be brought into England from Europe in any foreign ship, except from the place of their production, or from the ports whence they are usually brought, and in ships belonging to the countries of production or accustomed shipment. The third bill was intituled "An Act for the encouragement of navigation and commerce, by regulating the importation of goods and merchandise, so far as relates to the countries or places from whence, and the ships in which, such importation shall be made." By this Act, certain enumerated goods were allowed to be brought to this country from any port in Europe, in ships belonging to the port of shipment. Ships belonging to Holland, which, by the Navigation Act, had been forbidden to enter English ports with cargo, were placed upon the same footing as the ships of other countries. South American produce, which, before the passing of this Act, could be brought only from certain ports of Spain and Portugal, were now permitted to be imported direct from the places of growth in ships of the country, the only exception to this concession being against places to which British ships

were not admitted for the purposes of trade. The regulation of the trade between our possessions in America and the West Indies, and other places in the same quarters, was the object of the fourth bill. It permitted the importation, subject to specified duties, into certain ports, of various articles from any foreign country in America, or port in the West Indies, either in British vessels, or in vessels belonging to the country or place of shipment, and the goods so imported might be again exported to any other colony, or to the United Kingdom. The fifth bill also applied to the regulation of the trade of our Western colonies. By its principal provision it was made lawful to export, in British ships, from any colony to any foreign port in Europe or Africa, any goods that have been legally imported into the colony, or which were of its own growth or manufacture; and it was further made lawful to export certain enumerated articles, in British ships, to any such colony from any foreign port in Europe or Africa. By means of these relaxations, the colonists were enabled to draw their supplies from any country in Europe, Africa, or America, and to send their produce in return to such markets as should hold out the greatest inducements.

In the year following that in which these Acts were passed, a notification was made to our Government by Prussia, that unless and until some relaxation of our system was made in favour of the ships of that country, heavy retaliatory duties would be imposed upon English shipping that should enter any Prussian port. It is surprising, considering the successful stand made eight years before by the United States, that so long a time should have been allowed to elapse before the continental nations proceeded to force us into the adoption of a more liberal course, by making us in turn the victims of our anti-social system. The adoption of this natural policy on the part of Prussia would assuredly have been soon followed by a similar movement in other countries, and our merchants and shipowners became immediately clamorous for the interference of the Government to obtain the removal of the duties imposed by Prussia. It was under these circumstances that what are called the Reciprocity Acts (4 Geo. IV., c. 77, and 5 Geo. IV., c. 1) were passed. These Acts authorized His Majesty, by Order in Council, to permit the importation and exportation of goods in foreign vessels, on payment of the same duties as were chargeable when imported in British vessels, in favour of all such countries as should not levy discriminating duties upon goods imported into those countries in British vessels; and further to levy upon the vessels of such countries, when frequenting British ports, the same tonnage duties as are chargeable on British vessels. A power was, on the other hand, given to the Crown by these Acts of Parliament, to impose additional duties upon goods and shipping against any countries which should levy higher duties in the case of the employment of British vessels in the trade with those countries. The conces-

sions thus made met with only a feeble opposition, the principal Act having passed the Commons by a majority of 5 to 1.

Under the authority of these Acts of Parliament reciprocity treaties have been concluded with the following countries:—

France.	Portugal.
Austria.	Sardinia.
Russia.	Two Sicilies.
Sweden and Norway.	Greece.
Denmark.	Turkey.
Netherlands.	United States of America.
Prussia.	Mexico.
Lubeck.	Texas.
Bremen.	Uraguay.
Hamburg.	Bolivia.
Hanover.	Venezuela.
Mecklenburg Schwerin.	New Granada.
Mecklenburgh Strelitz.	Escuador (Equator).
Oldenburg.	Rio de la Plata.
Frankfort.	Brazil.

A great depreciation has undoubtedly taken place in the value of ships in this country. If, while the prices of all other kinds of property had undergone reduction, the price of ships had been exempted from alteration, it would have been extraordinary, and a circumstance by no means favourable to commerce. It is not possible to estimate proportionally the degree in which this general abatement of prices has affected shipping. One ship differs from another in those qualities which determine its marketable value; and not only so, but each ship is continually undergoing a change in those qualities. It may be fairly presumed, however, that the general fall of prices has not borne harder upon the owners of ships than upon the holders of other kinds of property, since we find from public documents, as shown in this volume, that the number and tonnage of vessels built since that fall became matter of complaint, have been greater than they were during years which are now pointed out as periods of prosperity by the shipping interest. The materials of which ships are built all participated in the fall —wood, hemp, iron, copper, sail-cloth,—every article that can be mentioned as portions of a ship or of her stores, had become cheaper, and as new ships could be profitably employed upon lower terms than those built in dearer times, the owners of the latter were of course compelled to accept of less remunerative rates of freight. Their value in the market was, of course, affected by the same circumstance, and as no man likes to see his property made less valuable, their owners became discontented. Overlooking the obvious cause of depression, and seeing that not only were they underbid by the owners of British ships built with cheaper materials, but also by the foreign shipowner, whose vessel was built still more cheaply, they forgot the circumstances which had in a manner compelled the Government to relax our navigation laws, and

attributed their losses and disappointments to the reciprocity treaties. With this feeling a deputation of shipowners waited upon Mr. Huskisson, when President of the Board of Trade, to remonstrate against the injustice of the new system, which obliged them to enter unprotected into competition with foreign shipping built and navigated so much more cheaply than their own. To meet this complaint in the manner that appeared most obviously fair to all parties, Mr. Huskisson proposed to grant to the builders of ships in this country a drawback equal to the full amount of any duty that had been paid upon the materials used in their construction and equipment. For very obvious reasons, this proposal was not favourably received by the complainants, who dreaded lest the Government, by acting upon Mr. Huskisson's suggestion, should give a fresh stimulus to ship-building at home, and raise up new competitors, who would be able to rival them successfully in every branch of commerce.

There is not any class of persons in this country, with the exception perhaps of the landowners, which has made such loud and continued complaints of distress as the shipowners have done since the peace in 1815. These gentlemen form a numerous, wealthy, and influential body, and acting as they do, in concert, with an organized committee to watch over their interests, they have always been able to command attention to their representations, and occasionally to defeat such measures of Government as were seemingly opposed to their interests. It is not intended to question here the importance, in a political point of view, of our mercantile marine; that importance has always been considered so great that if a sacrifice were needed on the part of the nation, in order to keep up the number and efficiency of our trading-vessels, there would be little question as to the propriety of such a course.* In admitting this, it is by no means intended to allow that any such sacrifice is necessary, or that the activity of our merchants would not furnish an adequate amount of employment in those branches of commerce, where British vessels can be advantageously employed, without the necessity for inciting them by discriminating duties to embark in any course of trade which may tend to injure other classes of the community. If this position be correct, it would be difficult to show why ships, the tools merely with which merchants work, should be more considered than the traffic itself for the conveyance of which they are constructed, why

* It seems deserving of remark that the importance to the country of keeping up our mercantile marine "as a nursery for seamen" to man the national fleet, has been in some degree forgotten when encouragement has been given to steam navigation, one of the most certain consequences attending that great invention being importantly to lessen the proportion of seamen required for carrying on a given amount of trade. On the other hand, it is certain that in the event of war breaking out, the whole system of naval armaments will be changed by means of this great invention, and that a much smaller number of vessels and of seamen than have formerly been required would need to be employed.

they should be looked upon, as they generally have been in this country, not as the means of commerce, but as its end.

It has been a fruitful source of complaint, from year to year, on the part of the owners of British ships, that a large and increasing amount of foreign tonnage enters the ports of the United Kingdom, and they have been so accustomed to look with jealousy upon these foreign rivals, that they cannot forbear complaining of the competition at periods when it is notorious, and even acknowledged by themselves, that British vessels find full employment at rates of freight which are more satisfactory to themselves than beneficial to the trading interests of the country. In years of great commercial excitement, when the demand for shipping is unusually great, it is of great advantage to British shipowners that our merchants should be able to employ foreign vessels. If the tonnage under British register were sufficiently great to answer the possible demands of any extraordinary year, what would become of the surplus of that tonnage during years of ordinary employment? Home competition would, in such cases, inevitably bring down the rates of freight below the scale that would remunerate the owners; whereas now that the merchants are free to supply their wants in foreign parts, they will do so no longer than necessity obliges them, and that necessity being over, the reasonable amount of British tonnage finds its usual employment at the usual scale of compensation. In years when the employment of British ships is greatest, there is the largest proportionate use of foreign shipping, and, on the contrary, during years of commercial depression, the proportionate use of foreign tonnage is always found to be the least.

If it were not for the political consideration before alluded to, which causes us to look to our mercantile marine more, perhaps, than would be necessary if a good system were adopted for recruiting the national fleet, no one could have questioned that the true interests of commerce would require that we should employ the ships of any country which would best and cheapest perform the office of conveying merchandise to and from our shores. It is, indeed, no longer doubtful whether, all restrictions imposed on our foreign commerce in favour of our own flag being abolished through the repeal in 1849 of our navigation laws, English vessels are able successfully—nay, triumphantly—to compete with the ships of every other country. It is a fact, that in our trade with the United States of America, a continually-increasing proportion of British tonnage has of late years been employed. In 1821, the proportion of British vessels which entered the ports of the United States was $7\frac{1}{5}$ per cent., compared with the American tonnage employed in the foreign trade of the States; while, in 1835, that proportion was increased to 39 per cent., which proportion was maintained in 1844, and increased in

1849, to 55¾ per cent.: the actual numbers in each of the twenty-eight years from 1821 to 1849, have been as follows:—

Years.	British Tons.	American Tons.	Years.	British Tons.	American Tons.
1821	55,188	765,098	1836	544,774	1,255,384
1822	70,669	787,961	1837	543,020	1,299,720
1823	89,553	775,271	1838	484,702	1,302,974
1824	67,351	850,033	1839	495,353	1,491,279
1825	63,036	880,754	1840	582,424	1,576,946
1826	69,295	942,206	1841	615,623	1,631,909
1827	99,114	918,361	1842	599,502	1,510,111
1828	104,167	868,381	1843	453,894	1,443,523
1829	86,377	872,949	1844	766,747	1,977,438
1830	87,231	967,227	1845	753,882	2,035,486
1831	215,887	922,952	1846	813,287	2,151,114
1832	288,841	949,622	1847	993,210	2,101,359
1833	383,487	1,111,441	1848	1,177,104	2,393,482
1834	453,495	1,074,670	1849	1,482,707	2,658,321
1835	529,922	1,352,653			

The increase in British shipping between the first and the last years of the series is 2584 per cent.; but the increase in American shipping during the same time has been nearly 248 per cent.; and in the face of this positive increase of employment we have not heard any complaints from American shipowners against the system of reciprocity under which the far greater proportionate increase of British shipping has occurred. If all the foreign tonnage that entered the ports of the United States in each of the years 1821, 1835, and 1849, were compared with the American tonnage in those years respectively, it would be found that, in 1821, the proportion was 10·65; whilst, in 1835, it was 47·42 of foreign to 100 American, and in 1849, it was 64·36. If, then, we compare in the same way the British and foreign tonnage that entered the ports of the United Kingdom in the same years, it will be found, that in the former year the proportion was 27 per cent.; while, in 1835, it was 35½ per cent., and in 1849, 41·67 per cent. If we then turn to the halcyon days of British shipowners—the days to which they are accustomed to refer as the period of their greatest prosperity—we shall find that this prosperity was certainly not occasioned by the absence of competition on the part of foreign vessels; for in each of the years as to which the records have been preserved, which occurred between the beginning of the century and the termination of the war, the proportion of foreign to British shipping which entered our ports was far greater than it is at present:—

In 1801 for 100 tons British,		there were	84·56	tons foreign.
1802	,,	,,	36·02	,,
1803	,,	,,	57·19	,,
1804	,,	,,	67·11	,,
1805	,,	,,	72·58	,,
1806	,,	,,	67·77	,,
1809	,,	,,	80·88	,,
1810	,,	,,	131·27	,,

In whichever way we estimate the amount of our foreign and colonial

commerce, whether by the "official value" of the Custom-house, or the declared value of the exporters, we shall acquire a very imperfect test of its importance. It is not according to the money value of the goods, but according to the amount of industry which has been set in motion for their production, that we should estimate our exports; while, on the other hand, it is the quantity and not the money value of the foreign productions that we receive in return, that forms the true measure of the sum of enjoyment which they occasion to the country. The amount of tonnage employed for the conveyance of these products from and to our shores forms, perhaps, a much better measure of the progress of our foreign trade than any computations of their cost in money. If, then, we contrast the amount of shipping that entered and left our ports in the two years 1802 and 1836, we find that in the former year it amounted to rather less than half the tonnage employed in 1836; the numbers being 3,448,060 and 7,061,069 respectively. In 1814, the first year of peace, the tonnage employed amounted to no more than 3,764,428; but since that time the quantity has progressively increased, somewhat slowly at first, but more rapidly of late years. The average of the five years, 1814 to 1818, was 4,147,257 tons. The averages during subsequent periods have been as follows:—

5 years,	1819 to	1823	4,200,332	tons.
5 „	1824 „	1828	5,332,122	„
5 „	1829 „	1833	5,916,311	„
5 „	1834 „	1838	7,056,097	„
6 „	1839 „	1844	9,514,123	„
5 „	1845 „	1849	13,216,620	„

The actual numbers in each of the last five years of the series were:—

Years.	Tons.	Years.	Tons.
1845	12,077,305	1848	13,306,626
1846	12,415,586	1849	14,004,388
1847	14,279,196		

The number and tonnage of registered ships belonging to the United Kingdom and its dependencies from 1803, the earliest year to which the record extends, down to 1849, are shown in the following table. In comparing the amount of tonnage that existed during the war with the amount since on the registry, it must be borne in mind, that in the former period a considerable part of our mercantile marine was employed in the public service, for the conveyance of troops and warlike stores, and that during a time of peace a smaller number of ships will suffice for carrying on a given amount of traffic than are required during war, when they are liable to detention for convoy. In addition to these circumstances, we must bear in mind the fact already mentioned, that where steam-vessels are employed, the celerity of their movements occasions a great saving in the tonnage required.

Vessels belonging to the United Kingdom and its Dependencies.

Years.	United Kingdom and Possessions in Europe.		Colonies.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1803	18,068	1,986,076	2,825	181,787	20,893	2,167,863
1804	18,870	2,077,061	2,904	191,509	21,774	2,268,570
1805	19,027	2,092,489	3,024	190,953	22,051	2,283,442
1806	19,315	2,079,914	2,867	183,800	22,182	2,263,714
1807	19,373	2,096,827	2,917	184,794	22,290	2,281,621
1808	19,580	2,130,396	3,066	194,423	22,646	2,324,819
1809	19,882	2,167,221	3,188	201,247	23,070	2,368,468
1810	20,253	2,210,661	3,450	215,383	23,703	2,426,044
1811	20,478	2,247,322	3,628	227,452	24,106	2,474,774
*1814	21,550	2,414,170	2,868	202,795	24,418	2,616,965
1815	21,869	2,447,831	2,991	203,445	24,860	2,681,276
1816	22,026	2,504,290	3,775	279,643	25,801	2,783,933
1817	21,775	2,421,354	3,571	243,632	25,346	2,664,986
1818	22,024	2,452,608	3,483	221,860	25,507	2,674,468
1819	21,997	2,451,597	3,485	214,799	25,482	2,666,396
1820	21,969	2,439,029	3,405	209,564	25,374	2,648,593
1821	21,652	2,355,853	3,384	204,350	25,036	2,560,203
1822	21,238	2,315,403	3,404	203,641	24,642	2,519,044
1823	21,042	2,302,867	3,500	203,893	24,542	2,506,760
1824	21,280	2,348,314	3,496	211,273	24,776	2,559,587
1825	20,701	2,328,807	3,579	214,875	24,280	2,553,682
1826	20,968	2,411,461	3,657	224,183	24,625	2,635,644
†1827	19,524	2,181,138	3,675	279,362	23,199	2,460,500
1828	19,646	2,193,300	4,449	324,891	24,095	2,518,191
1829	19,110	2,199,959	4,343	317,041	23,453	2,517,000
1830	19,174	2,201,592	4,547	330,227	23,721	2,531,819
1831	19,450	2,224,356	4,792	357,608	24,242	2,581,964
1832	19,664	2,261,860	4,771	356,208	24,435	2,618,068
1833	19,689	2,271,301	4,696	363,276	24,385	2,634,577
1834	19,975	2,312,355	5,080	403,745	25,055	2,716,100
1835	20,300	2,360,303	5,211	423,458	25,511	2,783,761
1836	20,388	2,349,749	5,432	442,897	25,820	2,792,646
1837	20,536	2,333,521	5,501	457,497	26,037	2,791,018
1838	20,912	2,420,759	5,697	469,842	26,609	2,890,601
1839	19,781	2,401,346	6,075	497,798	25,856	2,899,144
1840	20,685	2,584,408	6,308	543,276	26,993	3,127,684
1841	23,461	2,935,399	6,591	577,081	30,052	3,512,480
1842	23,954	3,041,420	6,861	578,430	30,815	3,619,850
1843	23,898	3,007,581	7,085	580,806	30,983	3,588,387
1844	24,016	3,044,392	7,304	592,839	31,320	3,637,231
1845	24,388	3,123,180	7,429	590,881	31,817	3,714,061
1846	24,771	3,199,785	7,728	617,327	32,499	3,817,112
1847	25,200	3,307,921	7,788	644,603	32,988	3,952,524
1848	25,638	3,400,809	8,034	651,351	33,672	4,052,160
1849	25,902	3,485,958	8,188	658,157	34,090	4,144,115

The number and tonnage of merchant vessels built and registered in the British dominions in each year, from 1801 to 1849, with the exception of 1812 and 1813, (the records of which were destroyed), are given in the following table (p. 395).

It will be seen, that the amount of new vessels has been much greater during the last twenty-five years than it was during the former part of the century. The casualties to which ships are liable are evidently greater during war than in peace; and we should assuredly have required, on

* The Records of 1812 and 1813 were destroyed at the burning of the Custom-house.

† A new Registry Act (6 Geo. IV., c. 110) came into operation this year previously to that time many vessels which had been lost from time to time were continued in the registry, no evidence of their loss having been produced.

Statement of the Number and Tonnage of Vessels Built and Registered in the United Kingdom and its Dependencies in various Years since 1801.

Years.	United Kingdom, and Possessions in Europe.		Colonies.		British Empire.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1801	..	..	..	..	1,065	122,593
1802	..	..	..	..	1,281	137,508
1803	..	..	..	..	1,407	135,692
1804	..	..	..	..	991	95,979
1805	..	..	..	..	1,001	89,584
1806	..	..	..	..	772	69,198
1807	..	..	..	..	770	68,000
1808	..	..	..	..	568	57,140
1809	..	..	..	..	596	61,396
1810	..	..	..	..	685	84,891
1811	..	..	..	..	870	115,638
1814	706	86,075	158	11,874	864	97,949
1815	912	102,903	271	25,637	1,183	128,540
1816	852	84,676	422	32,725	1,274	117,401
1817	758	81,210	324	23,219	1,082	104,429
1818	753	86,911	306	17,455	1,059	104,366
1819	775	88,985	350	23,188	1,125	112,173
1820	635	68,142	248	16,440	883	84,582
1821	597	59,482	275	15,365	872	74,847
1822	571	51,533	209	15,611	780	67,144
1823	604	63,788	243	22,240	847	86,028
1824	837	93,219	342	50,522	1,179	143,741
1825	1,003	124,029	536	80,895	1,539	204,924
1826	1,131	119,086	588	86,554	1,719	205,640
1827	911	95,038	529	68,908	1,440	163,946
1828	857	90,069	464	50,844	1,321	140,913
1829	734	77,635	416	39,237	1,150	116,872
1830	750	77,411	367	32,719	1,117	110,130
1831	760	85,707	376	34,290	1,136	119,997
1832	759	92,915	386	43,397	1,145	136,312
1833	728	92,171	431	52,476	1,159	144,647
1834	806	102,710	425	55,817	1,231	158,527
1835	916	121,722	455	63,230	1,371	184,952
1836	709	89,636	376	49,976	1,150	156,240
1837	1,005	135,922	510	71,306	1,515	207,228
1838	1,147	161,459	606	79,947	1,753	241,406
1839	1,278	186,903	703	109,025	1,981	295,928
1840	1,406	216,949	771	143,288	2,177	360,237
1841	1,192	168,309	668	132,857	1,860	301,166
1842	971	133,275	558	75,662	1,529	208,937
1843	736	85,373	494	55,904	1,230	141,277
1844	731	96,876	525	69,857	1,256	166,733
1845	890	124,919	638	90,696	1,528	215,615
1846	841	127,498	745	113,558	1,586	241,056
1847	981	149,924	756	155,313	1,737	305,237
1848	878	125,940	655	101,988	1,533	227,928
1849	771	121,266	*608	109,518	1,379	230,784

that account, to build a larger number between 1801 and 1813 than subsequently, but for the number of foreign trading vessels captured between those years and admitted to the privileges of a British register. There is not any existing account of the actual number so admitted in each of the years, but a parliamentary return gives the number and tonnage of foreign-built vessels thus privileged, and which continued in

* The returns for the colonies not having been all received when this account was made up, the numbers for 1849 cannot be accurately given, and are below the truth.

existence on the 30th September of each year, from 1792 to 1812: these vessels form part of the tonnage included in the statement already given.

Statement of the Number and Tonnage of Prize Ships admitted to British Registry, which continued in existence on the 30th of September of each Year from 1801 to 1812.

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1801	2,779	369,563	1807	2,764	377,519
1802	2,827	358,577	1808	3,222	448,758
1803	2,286	307,370	1809	3,547	493,327
1804	2,533	337,443	1810	3,903	534,346
1805	2,520	339,763	1811	4,023	536,240
1806	2,564	342,248	1812	3,899	513,044

It is a singular fact, that notwithstanding the importance which has always been assigned to the subject of the employment of shipping in this country, there are not any public documents in existence from which a perfect account can be compiled of the number of vessels and their tonnage that entered the ports of the United Kingdom, and cleared from the same in the years that occurred between 1801 and 1814. In this latter year the Custom-house of London was destroyed by fire, and for all information connected with that branch of the public service, which refers to years preceding that event, we are obliged to depend upon returns that had already been made to Parliament. All that it is possible to obtain from this source has been used in the compilation of the following tables (pp. 397-8), the blanks in which it will not be possible ever to supply. Since 1814 the documents are complete.

These tables prove, to demonstration, that the gloomy forebodings of English shipowners, as already explained, have altogether failed of realization. It is a well-known fact, that, as regards Prussia, to which country they looked with the greatest degree of apprehension, her mercantile navy has been most markedly diminished in amount since the commencement of our reciprocity agreement with that country. Our shipping, on the contrary, is far from having been diminished by admitting this amount of foreign rivalry. Having amounted, on the average of the three years 1824 to 1826, to 2,582,971 tons, it was increased on the average of the three years ending with 1836, to 2,761,169 tons, and in the three years ending with 1849, to 4,049,600 tons. If we compare the average amount of British and foreign tonnage that entered the ports of the United Kingdom at the earliest and latest of these triennial periods, we shall find, that while that under the British flag has increased from 1,964,183 to 4,797,279 tons, or 2,833,096 tons, the average amount of foreign tonnage so entering has increased only from 803,896 to 2,083,347, or 1,279,451 tons.

Statement of the Number and Tonnage of Vessels, British and Foreign, that entered the Ports of the United Kingdom, exclusive of the intercourse between Great Britain and Ireland, and of the Coasting Trade, in each Year from 1801 to 1849, so far as the same can be made up from records at the Custom-house.

	INWARDS.					
Years.	British.		Foreign.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1801	4,987	922,594	5,497	780,155	10,484	1,702,749
1802	7,806	1,333,005	3,728	480,251	11,534	1,813,256
1803	6,264	1,115,702	4,254	638,104	10,518	1,753,806
1804	4,865	904,932	4,271	607,299	9,136	1,512,231
1805	5,167	953,250	4,517	691,883	9,684	1,645,133
1806	5,211	904,367	3,793	612,904	9,004	1,517,271
1807	..	..	4,087	680,144	..	..
1808	..	..	1,926	283,657	..	..
1809	5,615	938,675	4,922	759,287	10,537	1,697,962
1810	5,154	896,001	6,876	1,176,243	12,030	2,072,244
1811	..	..	3,216	687,180	..	..
1814	8,975	1,290,248	5,286	599,287	14,261	1,889,535
1815	8,880	1,372,108	5,314	746,985	14,194	2,119,093
1816	9,744	1,415,723	3,116	379,465	12,860	1,795,188
1817	11,255	1,625,121	3,336	445,011	14,651	2,070,132
1818	13,006	1,886,394	6,238	762,457	19,244	2,648,851
1819	11,974	1,809,128	4,215	542,684	16,189	2,351,812
1820	11,285	1,668,060	3,472	447,611	14,757	2,115,671
1821	10,810	1,599,274	3,261	396,256	14,071	1,995,530
1822	11,087	1,664,186	3,389	469,151	14,476	2,133,337
1823	11,271	1,740,859	4,069	582,996	15,340	2,323,855
1824	11,733	1,797,320	5,653	759,441	17,386	2,556,761
1825	13,516	2,144,598	6,968	958,132	20,484	3,102,730
1826	12,473	1,950,630	5,729	694,116	18,202	2,644,746
1827	13,133	2,086,898	6,046	751,864	19,179	2,839,762
1828	13,436	2,094,357	4,955	634,620	18,391	2,728,977
1829	13,659	2,184,525	5,218	710,303	18,877	2,894,828
1830	13,548	2,180,042	5,359	758,828	18,907	2,938,870
1831	14,488	2,367,322	6,085	874,605	20,573	3,241,927
1832	13,372	2,185,980	4,546	639,979	17,918	2,825,959
1833	13,119	2,183,814	5,505	762,085	18,624	2,945,899
1834	13,903	2,298,263	5,894	833,905	19,797	3,132,168
1835	14,295	2,442,734	6,005	866,990	20,300	3,309,724
1836	14,347	2,505,473	7,131	988,899	21,478	3,494,372
1837	15,155	2,617,166	7,343	1,005,940	22,498	3,623,106
1838	16,119	2,785,387	8,679	1,211,666	24,798	3,997,053
1839	17,635	3,101,650	10,326	1,331,365	27,961	4,433,015
1840	17,883	3,197,501	10,198	1,460,294	28,081	4,657,795
1841	18,525	3,361,211	9,527	1,291,165	28,052	4,652,376
1842	18,987	3,294,725	8,054	1,205,303	27,041	4,500,028
1843	19,500	3,545,346	8,541	1,301,950	28,041	4,847,296
1844	19,687	3,647,463	9,608	1,402,138	29,295	5,049,601
1845	21,001	4,310,639	11,651	1,735,079	32,652	6,045,718
1846	21,273	4,294,733	12,548	1,806,282	33,821	6,101,015
1847	24,017	4,942,094	14,789	2,253,939	38,806	7,196,033
1848	21,783	4,565,533	13,100	1,960,412	34,883	6,525,945
1849	23,646	4,884,210	13,426	2,035,690	37,072	6,919,900

Statement of the Number and Tonnage of Vessels, British and Foreign, that cleared from the Ports of the United Kingdom, exclusive of the intercourse between Great Britain and Ireland, and of the Coasting Trade, in each Year from 1801 to 1849, so far as the same can be made up from records at the Custom-house.

	OUTWARDS.					
Years.	British.		Foreign.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1801	..	..	..	..	..	..
1802	7,471	1,177,224	3,332	457,580	10,803	1,634,804
1803	5,523	950,787	3,672	574,420	9,195	1,525,207
1804	4,983	906,007	4,093	587,849	9,076	1,493,856
1805	5,319	971,496	3,932	605,821	9,251	1,577,317
1806	5,219	899,574	3,459	568,170	8,678	1,467,744
1807	..	..	3,846	631,910	..	..
1808	..	..	1,892	282,145	..	..
1809	5,488	950,565	4,530	699,750	10,018	1,650,315
1810	3,969	860,632	6,641	1,138,527	10,610	1,999,159
1811	..	..	..	..	..	..
1814	8,620	1,271,952	4,622	602,941	13,242	2,874,893
1815	8,892	1,398,688	4,701	751,377	13,593	1,150,065
1816	9,044	1,340,277	2,579	399,160	11,623	1,739,437
1817	10,713	1,558,336	2,905	440,622	13,618	1,998,958
1818	11,445	1,715,488	5,399	734,649	16,844	2,450,137
1819	10,250	1,562,332	3,795	556,511	14,045	2,118,843
1820	10,102	1,549,508	2,969	433,328	13,071	1,982,836
1821	9,797	1,488,644	2,626	383,786	12,423	1,872,430
1822	10,023	1,533,260	2,843	457,542	12,866	1,996,802
1823	9,666	1,546,976	3,437	563,571	13,103	2,110,547
1824	10,157	1,657,533	5,026	746,707	15,083	2,404,240
1825	10,848	1,793,994	6,075	905,520	16,923	2,699,514
1826	10,844	1,737,425	5,410	692,440	16,254	2,429,865
1827	11,481	1,887,682	5,714	767,821	17,195	2,655,503
1828	12,248	2,006,397	4,405	608,118	16,653	2,614,515
1829	12,636	2,063,179	5,094	730,250	17,730	2,793,429
1830	12,747	2,102,147	5,158	758,368	17,905	2,860,515
1831	13,791	2,300,731	5,927	896,051	19,718	3,196,782
1832	13,292	2,229,269	4,391	651,223	17,683	2,880,492
1833	13,266	2,244,274	5,250	758,601	18,516	3,002,875
1834	13,639	2,296,325	5,823	852,827	19,462	3,149,152
1835	13,948	2,419,941	6,047	905,270	19,995	3,325,211
1836	14,207	2,531,577	7,048	1,035,120	21,255	3,566,697
1837	14,567	2,547,227	7,461	1,036,738	22,028	3,583,965
1838	15,907	2,876,236	8,520	1,222,803	24,427	4,099,039
1839	17,068	3,036,611	10,698	1,338,096	27,764	4,494,707
1840	17,633	3,292,984	10,440	1,488,888	28,073	4,781,872
1841	18,464	3,429,279	9,786	1,336,892	28,250	4,766,171
1842	18,785	3,375,270	8,375	1,252,176	27,160	4,627,446
1843	19,334	3,635,833	8,709	1,341,433	28,043	4,977,266
1844	19,788	3,852,822	9,816	1,444,346	29,604	5,297,168
1845	20,231	4,235,451	12,296	1,796,136	32,527	6,031,587
1846	21,079	4,393,415	13,323	1,921,156	34,402	6,314,571
1847	22,669	4,770,370	15,256	2,312,793	37,925	7,083,163
1848	21,177	4,724,027	13,645	2,056,654	34,822	6,780,681
1849	22,328	4,785,428	15,275	2,299,060	37,603	7,084,488

The following table shows the course of the import and export trade of this country, in each of the years 1802, 1814, 1835, and 1849 :—

Analysis of the Import and Export Trade of the United Kingdom in the Years 1802, 1814, 1835, *and* 1849, *respectively, showing the actual and proportionate Amount of Tonnage employed at each period in our Commerce with the Principal Geographical Divisions of the World.*

PRINCIPAL GEOGRAPHICAL DIVISIONS.	INWARDS.							
	1802		1814		1835		1849	
	Actual Amount of British and Foreign Tonnage employed.	Centesimal Proportions.	Actual Amount of British and Foreign Tonnage employed.	Centesimal Proportions.	Actual Amount of British and Foreign Tonnage employed.	Centesimal Proportions.	Actual Amount of British and Foreign Tonnage employed.	Centesimal Proportions.
European Kingdoms or States	1,178,705	65·00	1,131,281	63·57	1,615,036	48·79	3,753,618	54·25
British Dominions in Europe (excluding Ireland)	67,878	3·79	83,507	4·69	172,483	5·21	180,945	2·61
United States of America	111,118	6·12	2,661	0·15	318,846	9·63	990,032	14·31
Foreign Colonies, &c., in West Indies and America	7,866	0·43	83,906	4·71	87,604	2·64	337,846	4·88
British Colonies in West Indies and America	336,344	18·54	343,658	19·32	886,524	26·21	1,083,582	15·66
Africa	7,270	0·40	13,514	0·76	40,131	1·21	177,835	2·57
Cape of Good Hope and India	67,627	3·72	74,117	4·16	161,473	4·88	325,887	4·71
New South Wales, &c.	..	..	438	0·02	16,019	0·48	58,809	0·85
Greenland and Southern Fisheries	36,448	2·00	46,550	2·62	31,608	0·95	11,346	0·16
Total	1,813,256	100·00	1,779,632	100·00	3,309,724	100·00	6,919,900	100·00
	OUTWARDS.							
European Kingdoms or States	1,034,517	63·28	1,126,152	65·06	1,615,563	48·59	3,749,927	52·93
British Dominions in Europe (excluding Ireland)	60,275	3·69	84,755	4·90	165,233	4·97	217,179	3·07
United States of America	123,108	7·53	476	0·03	370,924	11·15	1,197,595	16·90
Foreign Colonies, &c., in West Indies and America	1,804	0·11	67,163	3·88	101,806	3·06	390,327	5·51
British Colonies in West Indies and America	268,463	16·42	348,188	20·12	803,596	24·17	858,113	12·11
Africa	44,070	2·70	15,945	0·92	48,586	1·46	153,384	2·17
Cape of Good Hope and India	59,546	3·64	41,993	2·43	149,958	4·51	362,203	5·11
New South Wales, &c.	..	..	561	0·03	35,919	1·08	140,983	1·99
Greenland and Southern Fisheries	43,021	2·63	45,575	2·63	33,626	1·01	14,777	0·21
Total	1,634,804	100·00	1,730,808	100·00	3,325,211	100·00	7,084,483	100·00

CHAPTER X.

PROGRESS OF TRADE IN FOREIGN COUNTRIES.

Foreign Trade of France, 1801 to 1848—Shipping employed therein, 1820 to 1848—Proportions of National to Foreign Shipping employed by England, France, United States of America, Sweden, Norway, and Russia—Foreign Trade of United States of America, 1801 to 1848.

THE foreign trade of France has increased greatly since the peace. During the continuance of war, the commerce of her Atlantic ports was completely ruined by our cruisers; at Havre, which, from its being the centre of the trade with the United States, has been called the Liverpool of France, a great part of the houses were then shut up; the stores and harbours were empty; and it is no figure of speech to say that grass grew in the streets. The traffic across the frontiers of Spain, Italy, the Netherlands, and the Rhenish provinces was not equally interrupted, and may even have been pursued with greater activity, because of the blockade of the ports, while the trade carried on within the Mediterranean, although greatly harassed and interrupted, was by no means annihilated, as was the case with that of the French ports in the English Channel.

The following table shows the amount of the import and export trades of France in each year, from the beginning of the century to the close of 1848, reduced to English money at the exchange of 25 francs to the pound sterling:—

Years.	Imports.	Exports.	Years.	Imports.	Exports.
	£.	£.		£.	£.
1801	16,609,167	12,177,240	1825	21,344,896	26,691,764
1802	18,597,986	12,973,046	1826	22,589,144	22,420,340
1803	17,195,986	13,835,118	1827	22,632,169	24,096,071
1804	17,616,681	15,181,252	1828	24,307,172	24,396,905
1805	19,676,230	14,985,375	1829	24,654,136	24,312,746
1806	19,073,481	18,198,434	1830	25,533,537	22,906,562
1807	15,728,104	15,022,963	1831	20,513,022	24,726,796
1808	12,804,756	13,232,196	1832	26,114,893	27,851,285
1809	11,469,964	13,273,824	1833	27,731,030	30,652,652
1810	13,466,536	14,601,340	1834	28,807,772	28,588,201
1811	11,942,464	13,116,232	1835	30,429,067	33,376,545
1812	8,319,480	16,745,848	1836	36,223,014	38,451,390
1813	10,043,420	14,170,292	1837	32,311,718	30,323,898
1814	9,558,236	13,842,116	1838	37,482,179	38,236,306
1815	7,936,648	15,908,174	1839	37,878,857	40,133,271
1816	10,462,766	18,528,842	1840	42,091,440	40,436,901
1817	13,592,010	15,791,494	1841	44,856,969	42,614,304
1818	14,276,558	17,968,261	1842	45,681,328	37,610,036
1819	12,368,931	16,619,177	1843	47,476,366	39,678,488
1820	14,525,575	18,196,727	1844	47,717,635	45,871,526
1821	15,777,694	16,190,583	1845	49,605,649	47,497,548
1822	17,047,168	15,406,748	1846	50,250,684	47,213,276
1823	14,473,129	15,630,177	1847	51,612,000	41,972,000
1824	18,194,464	17,621,676	1848	28,332,000	37,456,000

The object with which the foregoing table is inserted is to show how greatly, and, still more, how rapidly the foreign and colonial trade of France has gone on increasing during the last twenty-nine years. The aggregate amount of imports and exports in 1824 was 35,816,140*l.*; and in 1847 * it reached 93,584,000*l.*; being an increase in twenty-three years of 160 per cent.

The official returns of the French Government relative to the shipping employed in the foreign and colonial trade of that country, do not embrace an earlier period than 1820; the following statement is therefore necessarily limited to the years from 1820 to 1848, inclusive; during which period the tonnage employed, distinguishing that under the national flag from foreign vessels, was as follows:—

Years.	INWARDS.					
	French.		Foreign.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1820	3,730	335,942	4,337	354,556	8,067	690,498
1821	3,493	316,243	4,310	367,092	7,803	683,335
1822	3,282	285,560	4,456	423,041	7,738	708,604
1823	2,559	229,129	4,016	423,162	6,575	652,291
1824	3,387	316,480	4,184	438,005	7,571	754,485
1825	3,387	329,735	4,218	414,670	7,605	744,405
1826	3,440	355,776	4,910	544,682	8,305	900,458
1827	3,350	353,102	4,439	475,509	7,889	828,611
1828	3,465	346,591	4,728	527,639	8,193	874,230
1829	3,048	331,049	5,070	581,755	8,118	912,804
1830	3,236	340,171	5,169	669,283	8,405	1,609,454
1831	3,375	333,216	3,951	461,194	7,326	794,410
1832	4,290	399,948	5,651	714,638	9,941	1,114,586
1833	3,561	358,157	6,115	622,735	8,676	980,892
1834	3,965	394,486	3,124	736,918	10,089	1,131,404
1835	4,001	407,999	6,360	766,033	10,361	1,174,032
1836	5,173	550,121	7,099	839,345	12,272	1,439,466
1837	6,012	561,502	15,197	1,528,618	21,209	2,090,120
1838	6,658	626,070	16,477	1,705,646	23,135	2,331,716
1839	7,729	694,210	16,950	1,729,987	24,679	2,424,197
1840	7,474	658,378	17,770	1,822,884	25,244	2,481,262
1841	7,265	693,449	10,743	1,287,388	18,008	1,980,837
1842	6,827	669,604	11,819	1,426,527	18,646	2,096,131
1843	7,038	690,416	11,366	1,430,549	18,404	2,120,965
1844	7,381	751,712	11,205	1,421,435	18,586	2,173,147
1845	8,086	828,753	12,109	1,500,478	20,195	2,329,231
1846	9,223	952,423	13,493	1,743,598	22,716	2,696,021
1847	8,753	968,596	14,775	1,955,391	23,528	2,923,987
1848	8,313	919,096	8,899	1,056,840	17,212	1,975,936

* The political events of 1848 deprive of all value any comparison with the trade of that year.

Years.	OUTWARDS.					
	French.		Foreign.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1820	3,753	308,063	5,866	408,673	9,619	716,736
1821	3,552	290,483	5,722	353,965	9,274	644,448
1822	3,493	284,517	5,861	357,719	9,354	642,236
1823	3,316	222,744	6,159	398,290	9,475	621,034
1824	3,955	325,608	6,338	415,241	10,293	740,939
1825	3,908	354,307	5,994	400,440	9,502	754,747
1826	3,569	355,745	5,308	432,672	8,877	788,417
1827	3,522	346,370	6,321	439,842	8,843	786,212
1828	3,341	326,835	5,063	460,519	8,404	787,354
1829	3,101	316,462	4,490	420,228	7,591	736,690
1830	2,679	258,621	4,139	370,518	6,818	629,139
1831	3,671	326,253	4,240	362,981	7,911	689,234
1832	4,045	347,385	4,636	461,704	8,681	809,089
1833	3,675	318,840	4,580	464,028	8,255	782,868
1834	4,221	370,217	5,083	518,216	9,304	888,433
1835	4,292	387,139	5,194	484,807	9,486	871,946
1836	5,189	485,611	6,200	570,436	11,389	1,056,047
1837	5,876	566,705	15,028	1,584,212	20,904	2,150,917
1838	6,453	606,666	16,395	1,665,220	22,848	2,271,886
1839	7,371	681,360	16,695	1,724,493	24,066	2,405,853
1840	6,981	616,694	17,409	1,773,056	24,390	2,389,750
1841	7,115	713,870	10,678	1,273,450	17,793	1,987,320
1842	6,679	656,207	11,922	1,383,907	18,601	2,049,114
1843	6,956	698,476	11,693	1,442,436	18,649	2,140,912
1844	6,968	721,163	11,312	1,399,823	18,280	2,120,986
1845	7,994	844,482	12,240	1,487,923	20,234	2,332,405
1846	8,517	915,216	13,244	1,678,351	21,761	2,593,567
1847	8,511	960,550	14,831	1,900,265	23,342	2,860,815
1848	8,762	939,517	9,131	1,093,833	17,893	2,033,350

Those persons who have been accustomed to look with jealousy upon the proportion of foreign tonnage engaged in the trade of England, will see, from the foregoing table, how small, when compared with this country, is the proportion of vessels under the national flag employed in the foreign commerce of France. The following tables exhibit, in centesimal proportions, the degree in which both the import and export commerce of England, France, and the United States of America respectively, have been carried on in the ships of each country for a considerable series of years:—

Centesimal Proportions of British and Foreign Tonnage employed in the Import and Export Trades respectively of the United Kingdom, in each year from 1820 *to* 1849.

Years.	Entered Inwards.		Cleared Outwards.		Years.	Entered Inwards.		Cleared Outwards.	
	British.	Foreign.	British.	Foreign.		British.	Foreign.	British.	Foreign.
1820	78·84	21·16	78·15	21·85	1835	73·85	26·15	72·77	27·23
1821	80·14	19·86	79·50	20·50	1836	71·41	28·59	70·97	29·03
1822	78·00	22·00	77·08	22·92	1837	72·23	27·77	71·07	28·93
1823	74·91	25·09	73·29	26·71	1838	69·68	30·32	70·16	29·84
1824	70·29	29·71	68·94	31·06	1839	69·96	30·04	68·89	31·11
1825	69·12	30·88	66·45	33·55	1840	68·64	31·36	68·86	31·14
1826	73·75	26·25	71·50	28·50	1841	72·24	27·76	71·95	28·05
1827	73·51	26·49	71·08	28·92	1842	73·21	26·79	72·94	27·06
1828	76·74	23·26	76·74	23·26	1843	73·14	26·86	73·06	26·94
1829	75·46	24·54	73·85	26·15	1844	72·23	27·77	72·73	27·27
1830	74·18	25·82	73·48	26·52	1845	71·30	28·70	70·22	29·78
1831	73·02	26·98	71·97	28·03	1846	70·39	29·61	69·57	30·43
1832	77·35	22·65	77·39	22·61	1847	68·68	31·32	67·35	32·65
1833	74·13	25·87	74·73	25·27	1848	68·43	31·57	69·66	30·34
1834	73·37	26·63	72·91	27·09	1849	70·58	29·42	67·55	32·45

Centesimal Proportions of French and Foreign Tonnage, and of American and Foreign Tonnage employed in the Import and Export Trades of France and America respectively, between 1820 *and* 1848.

Years.	France.				United States of America.			
	Entered Inwards.		Cleared Outwards.		Entered Inwards.		Cleared Outwards.	
	French.	Foreign.	French.	Foreign.	American.	Foreign.	American.	Foreign.
1820	48·65	51·35	42·98	57·02	..	..	..	..
1821	46·28	53·72	45·06	54·94	90·37	9·63	90·64	9·36
1822	40·30	59·70	44·30	55·70	88·68	11·32	89·30	10·70
1823	35·13	64·87	35·86	64·14	86·65	13·35	87·13	12·87
1824	41·94	58·06	43·95	56·05	89·24	10·76	89·96	10·04
1825	44·29	55·71	46·94	53·06	91·48	8·52	90·99	9·01
1826	39·51	60·49	45·12	54·88	89·91	10·09	90·55	9·45
1827	42·61	57·39	44·04	55·96	86·96	13·04	89·00	11·00
1828	39·65	60·35	41·50	58·50	85·25	14·75	85·59	14·41
1829	36·26	63·74	42·96	57·04	87·57	12·43	87·69	12·31
1830	33·70	66·30	41·11	58·89	87·99	12·01	87·92	12·08
1831	41·94	68·06	47·33	52·67	76·60	23·40	78·14	21·86
1832	35·88	64·12	42·93	57·07	70·72	29·28	71·55	28·45
1833	36·51	63·49	40·73	59·27	69·11	30·89	69·67	30·33
1834	34·87	65·13	41·67	58·33	65·42	34·58	66·25	33·75
1835	34·75	65·25	44·39	55·61	67·84	32·16	68·94	31·06
1836	38·22	61·78	45·98	54·02	64·86	35·14	65·92	34·08
1837	26·86	73·14	26·35	73·65	62·92	37·08	62·32	37·68
1838	26·84	73·16	26·70	73·30	68·72	31·28	70·40	29·60
1839	28·63	71·37	28·32	71·68	70·47	29·53	70·28	29·72
1840	26·53	73·47	25·80	74·20	68·88	31·12	69·80	30·20
1841	35·	65·	35·87	64·13	68·90	31·10	68·93	31·07
1842	31·94	68·06	32·16	67·84	67·32	32·68	67·69	32·31
1843	32·55	67·45	32·62	67·38	72·97	27·03	70·33	29·67
1844	34·59	65·41	34·	66·	68·32	31·68	67·57	32·43
1845	35·58	64·42	36·20	63·80	69·09	30·91	68·82	31·18
1846	35·32	64·68	35·28	64·72	69·15	30·85	69·64	30·36
1847	33·12	66·88	33·57	66·43	63·26	36·74	65·18	34·82
1848	46·51	53·49	46·20	53·80	63·01	36·99	63·67	36·33

It will be here seen, that in the case of each of these countries, the proportionate quantity of foreign to national tonnage has been greater in the last than it was in the commencing year of the series. It must, on the other hand, be observed, that although the proportions have thus been more or less altered in a manner which, when applied to England, our shipowners are accustomed to consider unfavourable, the actual amount of the national tonnage has, in each case, been greatly increased. If that increase has not been equal to the increased amount of the commerce of the countries, does this fact not show that the additional capital, which it is evident must have been embarked in commercial pursuits, has, for the most part, been engaged more profitably for the merchants, and more advantageously for the country, in the prosecution of the trade itself, than it would have been by making additions to the number of the mercantile marine? To suppose otherwise, would be to imagine that the merchants prefer the least profitable channels for the employment of their capital, which appears absurd.

Our information concerning the shipping employed in most other countries is very scanty. The following figures, which comprise all that can be readily adduced upon the subject, will serve to show that the facts connected with the shipping employed even in those countries to which our shipowners look with the greatest jealousy and apprehension, are by no means calculated to justify those feelings:—

Country or Port.	Year.	Entered Inwards.				Cleared Outwards.			
		National Flag.		Foreign Flag.		National Flag.		Foreign Flag.	
		Actual Tonnage.	Centesimal Proportion.	Actual Tonnage.	Centesimal Proportion.	Actual Tonnage.	Centesimal Proportion.	Actual Tonnage.	Centesimal Proportion.
[illegible]	1830	162,954	48·97	169,810	51·03	174,910	48·99	182,083	51·01
	1831	165,835	50·64	161,622	49·36	171,163	51·09	163,830	48·91
	1832	170,224	49·27	175,279	50·73	176,345	49·67	178,617	50·33
	1833	174,713	49·69	176,888	50·31	180,083	49·95	180,436	50·05
	1834	175,193	46·90	198,346	53·10	174,094	45·76	206,282	54·24
[illegible]	1829	17,827	4·08	419,588	95·92	32,930	7·20	424,277	92·80
	1830	9,257	2·13	424,546	97·87	25,807	5·51	442,368	94·49
	1831	17,622	3·94	428,777	96·06	33,065	7·45	410,405	92·55
[illegible]	1829	77,393	52·86	69,009	47·14	80,799	53·95	68,950	46·05
	1830	92,968	55·45	74,679	44·55	90,672	54·88	74,521	45·12
	1831	61,555	61·69	38,224	38·31	58,900	60·68	38,165	39·32
	1832	61,237	64·77	33,297	35·23	61,986	65·19	33,093	34·81
[illegible]	1826	84,886	13·98	522,190	86·02	..	..	..	..
	1827	110,958	11·68	838,390	88·32	..	..	..	..
	1828	59,412	9·67	554,696	90·33	..	..	..	..
	1829	63,528	8·55	669,470	91·45	..	..	..	..
	1830	134,110	12·97	832,626	87·03	..	..	..	..
	1831	130,544	13·51	771,318	86·49	..	..	..	..
	1832	141,166	15·51	768,430	84·49	..	..	..	..
	1833	175,696	18·68	590,612	81·32	..	..	..	..
	1834	130,554	17·64	562,846	82·36	..	..	..	..
	1835	142,564	21·92	507,860	78·08	..	..	..	..

The following table, compiled from the returns made every year to Congress by the executive government, shows the progress of the trade of the United States during the present century :—

Statement of the estimated Value of Foreign Merchandise Imported into the United States of America, and of American and Foreign Merchandise Exported from those States, in each Year during the present Century, converting Dollars into English money at the rate of Fifty Pence to the Dollar.

Years ending 30th of September.	IMPORTS.	EXPORTS.		
		Produce, &c., of United States.	Produce of Foreign Countries.	Total Exports.
	£.	£.	£.	£.
1801	23,200,731	9,890,250	9,717,233	19,607,483
1802	15,902,777	7,647,539	7,453,119	15,100,658
1803	13,462,313	8,792,908	2,832,098	11,625,006
1804	17,708,333	8,639,057	7,548,248	16,187,305
1805	25,125,000	8,830,625	11,078,964	19,909,589
1806	26,978,416	8,594,526	12,559,006	21,153,552
1807	28,869,765	10,145,747	12,425,741	22,571,488
1808	11,872,916	1,965,322	2,707,794	4,673,116
1809	12,375,000	6,542,854	4,332,818	10,875,672
1810	17,791,666	8,826,390	5,081,519	13,907,909
1811	11,125,000	9,436,258	3,338,081	12,774,339
1812	16,047,916	6,256,689	1,769,817	8,026,506
1813	4,584,375	5,220,031	593,301	5,813,322
1814	2,701,041	1,412,973	30,243	1,443,216
1815	17,308,349	9,578,000	1,381,531	10,959,531
1816	32,354,729	13,496,228	3,570,532	17,066,760
1817	20,574,661	14,231,979	4,032,931	18,264,910
1818	25,364,583	15,386,341	4,047,227	19,433,568
1819	18,155,552	10,620,174	3,992,840	14,613,014
1820	15,510,416	10,767,425	3,768,339	14,535,764
1821	13,038,592	9,098,310	4,446,351	13,544,661
1822	17,341,988	10,390,433	4,642,957	15,033,390
1823	16,162,347	9,824,042	5,738,254	15,562,296
1824	16,781,043	10,551,979	5,278,575	15,830,554
1825	20,070,849	13,946,822	6,789,717	20,736,539
1826	17,703,016	11,053,273	5,112,419	16,165,692
1827	16,559,180	12,275,352	4,875,653	17,151,005
1828	18,439,546	10,556,181	4,498,953	15,055,134
1829	15,519,276	11,604,206	3,470,515	15,074,721
1830	14,766,025	12,387,323	2,997,391	15,385,314
1831	21,498,140	12,766,052	4,173,651	16,939,703
1832	21,047,764	13,153,639	5,008,223	18,161,862
1833	22,524,648	14,649,519	4,129,736	18,779,255
1834	26,358,610	16,880,033	4,856,835	21,736,868
1835	31,228,279	21,081,052	4,271,770	25,352,822
1836	39,579,174	22,274,308	4,530,491	26,804,799
1837	29,372,753	19,909,252	4,553,116	24,462,368
1838	23,689,042	20,007,046	2,594,331	22,601,377
1839	33,769,202	21,569,560	3,644,692	25,214,252
1840	22,321,149	23,728,257	3,789,648	27,517,905
1841	26,655,453	22,163,066	3,222,725	25,385,791
1842	20,867,101	19,368,750	2,441,986	21,810,736
1843	18,596,020	16,207,038	1,365,145	17,572,183
1844	22,590,632	20,773,995	2,392,680	23,166,675
1845	24,428,034	20,687,453	3,197,256	23,884,709
1846	25,352,458	21,279,561	2,363,755	23,643,316
1847	30,530,341	31,382,805	1,668,941	33,051,746
1848	32,291,443	27,688,358	4,402,565	32,090,923

The great difference observable between the value of the imports and that of the exports during the greater part of the years, cannot fail to strike the least careful examiner. This arises, in some part, from the

system adopted at the Custom-houses of the United States, of valuing merchandise, both imported and exported, according to its actual worth at the time in the place where it is landed or shipped. It must be obvious, that under this plan, the value of imports must be greater than that of the exports, not only by the amount of the merchant's profit, but also by the freight of such part at least as is conveyed in ships of the United States. But besides this, it is well known that there is a tendency for foreign capital to find its way for investment to the United States, where it yields a higher rate of interest than can be realized in Europe; and provided such operations are confined within moderate limits, and restricted to objects of a safe and profitable nature, they may be advantageous alike to both countries. It may well be doubted, however, whether the transactions of some of the years recorded in the tables have been confined within the wholesome limits here pointed out, and whether the balance of imports over exports has not been sometimes applied to objects of a merely speculative character. That excess appears to have amounted in the three years 1834, 5, and 6, to 23,271,570*l.*, or, on the average 7,757,190*l.* per annum. The trade with this kingdom alone in those three years exhibits an excess of imports over exports, to the amount of 6,847,940*l.*, or, on the average, 2,282,646*l.* per annum; which, as it amounts to 20 per cent. upon the exports, is evidently greater than can be accounted for by the freight and profit together.

CHAPTER XI.

PRUSSIAN COMMERCIAL LEAGUE.

Declared Object of the League—States of which it is composed—Motives which have led to its adoption—Previous Negotiations—Jealousy of English Merchants and Manufacturers—Effect of the League on the Manufacturers of Saxony.

THERE is, perhaps, no measure connected with our external commerce that has occasioned so much discussion in the present day as the Prusso-Bavarian League, which, under the name of the *Zoll Verein*, has united for the purposes of trade many of the otherwise independent states of Germany. The arrangements for perfecting this Union were in progress during many years, and it came into practical operation at the beginning of 1834. Previous to that time, the states of which the Union is composed did not allow of the introduction of merchandise across their respective frontiers without the payment of a duty; and in some cases, where domestic industry was to be "protected," the importation of many articles was prohibited. The principle of the Commercial League is to destroy all the frontier custom-houses between the leagued states; to allow of the freest intercourse between the subjects of all the different states composing the union; and thus to give to the inhabitants of each the fullest advantage to be derived from a community of interest, and from extending, in a most important degree, their markets for supply, and the field for the exercise of their industry. Duties on the introduction of merchandise from countries not comprised within the Union have, since the 1st of January, 1834, been collected at one uniform rate at custom-houses established on the exterior boundaries of the frontier states; and a principle for dividing the amount of the duties thus collected has been adopted between the governments, without any consideration as to which is the country for whose immediate use the importations are intended, or to any circumstance other than the proportionate amount of population.

The following table exhibits the names of the different States composing the league, the area of each, the number of its inhabitants, and the proportionate amount which each is entitled to receive out of the entire collections made in the custom-houses of the frontier states:—

STATES OF THE CONFEDERATION.	Area in German Geographical Square Miles.	Area in English Square Miles.	Number of Inhabitants.	Deductions for Military and Independent Districts.	Number of Inhabitants by which the Distribution of Revenue is regulated.	Per Centage Proportions of the Joint Revenue.
Prussia and its Dependencies	5,157·21	109,126	13,800,126	109,473	13,690,653	54·56
Bavaria	1,477·26	31,259	4,252,813	1,695	4,251,118	16·94
Saxony	271·68	5,749	1,595,668	..	1,595,668	6·36
Wurtemburg	385·15	8,150	1,631,779	..	1,631,779	6·50
Electorate of Hesse	182·10	3,853	700,327	59,653	640,674	2·55
Grand Duchy of Hesse	179·25	3,793	769,691	..	769,691	3·07
Thuringia	233·49	4,940	908,478	..	908,478	3·62
Grand Duchy of Baden	279·54	5,915	1,232,185	..	1,232,185	4·91
Duchy of Nassau	82·70	1,750	373,601	..	373,601	1·49
	8,248·38	174,535	25,264,668	170,821	25,093,847	100·00
Free City of Frankfort	4·33	92	60,000	..	60,000	*
	8,252·71	174,627	25,324,668	170,821	25,153,847	100·00

The districts comprehended in the above abstract, under the title of Thuringia, comprise:—

	Square German Miles.	Population.
Saxe Meiningen	41·72	146,324
„ Altenburg	23·41	117,921
„ Coburg Gotha	37·60	129,740
Swarzburg Sonderehausen (Upper Lordship)	16·90	23,750
„ Rudolstadt (Upper Lordship)	19·10	50,332
Principality of Reuss	27·94	99,626
Weimar Eisenach	66·82	226,664
Districts belonging to Prussia (included in the area of that country)	..	88,534
Districts belonging to the Electorate of Hesse	..	25,153
District of Kaulsdorf, belonging to Bavaria	..	434
	233·49	908,478

On the supposition that the real and single object of this peaceful confederation is that which its promoters have put forth to the world, viz., to simplify the fiscal arrangements of the countries by which it is adopted—there can hardly be formed two opinions in regard either to its wisdom or to the benign influence which it is calculated to have upon the minds and feelings of those who are brought within its operation. It seems, however, to be very generally believed and understood that the object thus avowed is not, so far at least as the chief mover in the plan is concerned, the only or the chief motive which has led to its adoption, but that political views, extending beyond the interests of the present day, and tending to the aggrandizement of Prussia, have been the real incentives to the scheme. This belief is greatly confirmed

* The per centage proportions for the division of the revenue were fixed before the city of Frankfort joined the league. The same proportions are still preserved, but Frankfort's share, calculated upon the same principle, is deducted previous to the apportionment between the other states of the Union.

by the facts, that, for a time at least, the revenue which Prussia draws as her share of the duties on importation would not be of as great amount as her previous receipts from the same source; and that the unlimited competition which is now afforded to the manufacturers of Saxony must act injuriously upon various branches of industry within the Prussian states, which it had previously been the policy of that government to encourage and protect. The obvious conclusion to be drawn from these circumstances is, that Prussia, in consenting to give up a considerable part of her revenue, and to forego the full advantages of branches of domestic industry to which she had previously looked as an element of strength, has the certainty of future indemnification to an extent beyond the amount of her present sacrifices; and this indemnification can only be found in the extension of her political influence.

It may be asked why, if this result be so certain and so obvious, the other states of which the Union is formed have been drawn in to consent to a scheme, which, although it brings some present profit, will, in the end, be productive of loss to them in the same proportion which Prussia will then realize of gain? It is not possible to go into an examination of the motives by which each of the states has individually been swayed to the course it has adopted, but there are two incentives common to the whole, which have, probably, more than all others, influenced their determination. With the exception of Prussia, all the members of the league would immediately enlarge the sphere of their commercial dealings in different proportions, varying from sixfold in the case of Bavaria to almost seventyfold in the case of Nassau, and more than four-hundredfold in that of the city of Frankfort. The degree of activity which this would give to the population in all their various relations, must needs occasion an accession of commercial prosperity which would ensure the popular favour to the alteration. This is one of the incentives, and perhaps the most powerful of the two. Then the increase of revenue by which it would be attended, and still more the mode of the collection of that revenue, would render the executive governments in so far independent of their "states" or legislative chambers, and could not fail to recommend the system to the rulers at a time when the temper of the mass rendered the absence of collision upon such a subject peculiarly desirable. We may add to these reasons, the effect that had been produced upon the public mind throughout the smaller states by popular writers, who, in pointing out the unity which the league was to impart to Germany, had flattered the pride of the people by their descriptions of the power and influence which would thence be given to them among the nations of Europe.

It has been mentioned, that the arrangements for establishing the Zoll Verein were in progress during several years. Conferences upon this subject were held in Darmstadt as early as 1820, between the

agents of Bavaria, Wurtemburg, Baden, Nassau, Saxony, and some other less important states; and these conferences were renewed from time to time, but were finally broken off in April, 1823. Four years afterwards, a treaty was concluded between Wurtemburg and Bavaria, the same in principle as that subsequently formed between Prussia and the States, which comprise the existing Union. Next followed the treaty of Prussia with Hesse, in February, 1828; and in the following September, while the former country was endeavouring to make terms with Wurtemburg and Bavaria, and to induce them to adopt her tariff—points in which she succeeded—a third association, under the name of the *Mittel Verein*, or middle association, was formed at Cassel between Saxony, Hanover, Hesse Cassel, Brunswick, Hamburg, Weimar, the towns of Frankfort and Bremen, and some of the minor German states. The first and leading conditions of this association will serve to mark the feeling of jealousy with which the designs of the parties to the other two leagues were viewed. It provided that, during six years, none of the contracting parties should relinquish their commercial alliance, nor treat with either the Bavarian or the Prussian league. Prussia soon found means, however, to detach some of its members from the Mittel Verein, and although the remaining members entered into a new treaty in 1829, by which they bound themselves to continue in alliance until 1840, some of its more important branches fell off from it, and the Mittel Verein was dissolved. The negotiations by which these results were produced occupied some years in their discussion; and it was not until the 1st of January, 1834, as already stated, that the Zoll Verein took the consistent form which it has since maintained.

Many of the independent states in the north of Germany have hitherto withstood the temptation offered by Prussia to bring them within the league; among these are Hanover, Brunswick, Mecklenburg-Schwerin, Oldenburg, and the free towns of Hamburg and Bremen.

The tariff of Prussia was more unfavourable to the admission of English goods than that of the other states with whom she has made this league; for which reason its progress was watched with considerable jealousy by the merchants and manufacturers of this country, who feared, with great apparent reason, that their trade would suffer in every case where additional rates of duty were imposed. From the manner in which the trade accounts are kept at our custom-houses, it is not possible to enter upon any minute examination of this question, because they afford us no means for separating the trade carried on with the countries that form the league from that maintained with other parts of Germany. If we include, as we therefore must do, the shipments of British produce and manufactures made to all Germany, in each of the twenty-three years from 1827 to 1849, it will be seen that their average annual value has been 5,475,020*l.* while their average annual value

in the seven years that preceded the commencement of the league on the 1st January, 1834, was only 4,624,192*l.*

Years.	£.	Years.	£.	Years.	£.
1827	4,828,956	1835	4,791,239	1843	6,651,042
1828	4,573,249	1836	4,624,451	1844	6,656,912
1829	4,662,566	1837	5,029,552	1845	7,095,795
1830	4,641,528	1838	5,144,123	1846	7,150,466
1831	3,835,768	1839	5,322,021	1847	6,839,935
1832	5,327,553	1840	5,627,844	1848	5,263,588
1833	4,499,727	1841	6,017,854	1849	6,078,355
1834	4,683,589	1842	6,579,351		

These figures do not afford any ground for complaint on the part of this country, and it is probable that the full effects of the Union in discouraging the importation of foreign manufactured goods, if any such effect were to be apprehended, must by this time have been experienced.

The cotton manufacture of Saxony has already become of twice the extent that it had reached before the Union, while the linen and woollen manufactures of that country have not experienced any increase. The reason for this difference is, that the persons engaged in the latter, which are more ancient branches of industry in Saxony, are so far "protected," that it is necessary to serve a regular apprenticeship, and to obtain admission into the guilds or corporations established in the manufacturing towns, before any man is allowed to carry on the business; while the recently-established cotton manufacture is without restriction or regulation of any kind, so that any person who can purchase or hire a loom is at liberty to become a cotton weaver.

The manufactures are encouraged by the miserably low rate of wages in Saxony. It is stated on the best authority, that in October, 1837, "a man employed in his loom, working very diligently from Monday morning until Saturday night, from five o'clock in the morning until dusk, and even at times with a lamp, his wife assisting him in finishing and taking home the work, could not possibly earn more than 20 groschen (2*s.* 6*d.* sterling) per week, and that another man, who had three children aged 12 years and upwards, all working at the loom as well as himself, with his wife employed doing up the work, could not earn in the whole more than one dollar eight groschen (5*s.* 4*d.*) weekly."

The wretched manner in which the poorer classes in that country subsist may be inferred from the fact exhibited by official statistical returns, that the annual consumption of meat in the principal manufacturing districts, including the town of Chemnitz, does not average more than twenty-eight pounds for each individual of the population, and that at least one-half of this quantity consists of pork. If this provision were equally divided among the entire number of inhabitants, it would amount to scarcely more than half a pound weekly for each individual; but as the actual distribution is of course very different from this, it is

probable there are many among the labouring artisans who rarely, if ever, taste animal food. The quantity of cotton hosiery made in Saxony has increased greatly of late years, and from its cheapness has not only secured the monopoly of the markets afforded throughout the Union, but has also been shipped largely to the United States, to the exclusion so far of the goods made at Nottingham. It may be stated, on the respectable authority already quoted, that cotton gloves are furnished by the Saxon manufacturers as low as six groschen or 9*d.* sterling per dozen pairs; stockings, at one dollar or 3*s.* per dozen pairs; and night-caps, at eight groschen or 1*s.* per dozen. Stout cotton caps, which are worn by the carmen and common people in that part of Germany, having stripes in six different colours upon a black ground, cost 12 groschen per dozen, or 1½*d.* sterling each.

These low prices are not the result of the same cause which has gradually reduced the cost of production in this country. Hitherto the machinery used in Saxony has been of the commonest sort, so that the cheapness of the manufactured goods has been owing to the low rate of wages, a rate which compels the artisans to labour long and diligently in order to ensure for their families the scantiest supply of the most common of the necessaries of life. The capital of the English manufacturer, which empowers him to employ the most perfect machinery, joined to his greater experience, have hitherto enabled him to compete successfully in most branches of skilled labour; but these are advantages which cannot be long retained in competition with greatly reduced wages. The profits which the Saxon manufacturers are thence enabled to realize, will probably lead to the introduction of improvements that will place our dearer processes at a still greater disadvantage; and as it is anything but desirable that we should retain our present relative position through the increasing hardships of our operative weavers, there remained but one course open to us in order to avert the evil—that of still further liberalizing our commercial system, and especially of lessening the cost of the prime necessaries of life, by abolishing all restrictions upon the importation of food.

The want of capital, which has hitherto been the chief obstacle to the still greater extension of the cotton manufacture in Saxony, would in time be remedied by the successful operation of the existing establishments; but the manufacturers in that country, unwilling to wait for so gradual a development of their resources, have had recourse to the expedient of establishing joint-stock companies. The total capital of associations of this character that have been formed, and which have proceeded to the accomplishment of their various objects, amounted in October, 1837, to nearly thirteen millions of dollars, about two millions sterling, a large sum for that country, and the greater part of which is furnished by the bankers and other capitalists of Leipzig.

CHAPTER XII.

CURRENCY.

Bullion Committee of 1810—Reasons suggested for Disagreement on the subject of Currency between the "Economists" and the "Practical Men"—High Prices of Gold, 1809–1815—Issues of Paper Money to facilitate Financial Operations of Government—Peel's Act—Panic of 1825—Formation of branches by Bank of England—Establishment of Joint Stock Banks—Number established, 1826–1836—Advantages of having only one Bank of Issue—National Bank—Influence of Currency on Prices—Plan for Estimating Rise and Fall of Prices—Effects of abundant or deficient Harvests upon Currency and Prices—Table of Notes in Circulation, of Bullion held by the Bank, of Exchanges with Hamburg and Paris, and of Comparative Prices of Wheat and Merchandise generally, in each Month, 1833–1837.

No subject of public and general interest has, during the last thirty years, been more frequently or earnestly debated and examined in this country, than that which relates to our system, or rather our practice—for it can hardly be said that we have pursued any steady system—as regards currency and the operations of banking. Since the appointment, in 1810, of the Committee of the House of Commons, which has been so celebrated as *The Bullion Committee*, this subject has repeatedly forced itself upon the attention of the mercantile part of the public and of the Government, and at each recurring period when the distress attendant upon the derangement of money operations has been experienced, the whole subject has been submitted to so much examination, and has occasioned such keen controversy between public economists on the one hand, and what are called practical men on the other hand, that it is surprising we have not long since arrived at conclusions respecting it which can be recognised as correct by all parties, and which would lead to the adoption of principles and practice by means of which the ruinous alternations now constantly recurring would be rendered impossible. The subject is certainly involved in difficulty, but not, assuredly, to such a degree as should render its solution impossible. Why then, it will be asked, is the public to this moment in so much doubt and perplexity concerning it, and why are our commercial men so ill-informed upon the subject as to be continually liable to mistake appearances which, if understood aright, should guide them as to the propriety of extending or contracting their undertakings? Where so

many and such high authorities are found to disagree, it might perhaps be considered bold to offer an opinion as to which of the parties in the controversy is right. It may be thought still more presumptuous to hazard the suggestion that both may be in some degree wrong, and to remark that our "practical men" have erred because they reasoned from partial and insufficient premises, and sought for the solution of a general question in the particular circumstances that passed under their own limited observation; while the theorists, or, as it has become the fashion to call them, the "bullionists," have erred because they have made little or no allowance for disturbing influences, the operation of which has been palpable to every man actually engaged in commercial pursuits. By this means the "practical men" have been confirmed in their total disbelief of the doctrines put forth by the "bullionists," and these, on the other hand, seeing that what they hold to be the most incontrovertible truths are set at nought by their opponents, may have been rendered unwilling to enter anew upon their inquiries, with the view of determining the modes and degree in which their abstract principles are liable to disturbance through the circumstances insisted on—perhaps too urgently—by their opponents. It would be out of place in this work, if even the author were competent to the task, to attempt to settle this much-controverted question: the foregoing remarks seem necessary, however, in order to account in some degree for the fact, that on a point which involves such important consequences, and where, for want of its being settled, commercial communities have been periodically visited with wide-spreading ruin, so little advance has hitherto been made towards reducing the subject of currency to scientific rules and principles. On each occasion, when the money-market has been subjected to one of these paroxysms, clever men have put themselves forward to explain the causes, and to point out how the evil may in future be avoided; and to those who will be at the pains to examine the arguments and assertions used on both sides of the controversy, it must be curious to observe how complete an identity of opinion and almost of expression there is between the writers who have advocated the same side of the question at different periods, so that the pamphlets put forth in 1811 or in 1826 would be found to embody all the principal arguments, and to have reference to the same set of circumstances, as formed the staple of the pamphlets written in 1837. This affords, at least, *primâ facie* evidence that the subject has been exhausted as far as reasoning is applicable, and that our want of agreement in regard to it may be the effect of prejudice, which withholds either party from giving due weight to the facts and arguments adduced by its opponents.

The measure adopted in 1797 of restricting the Bank of England from paying its notes in specie, while it continued in operation, placed the currency of this country under circumstances wholly dissimilar to

those that have attended it either before or since. The peculiar operation of these circumstances was besides considerably exaggerated by the events of the war, and by the peculiar character given to that war during the seven years that preceded the peace of Paris. For these reasons, it is difficult to make the condition of the currency, as marked by the price of gold and the rate of the foreign exchanges at that time, the sole test of the soundness of the practice pursued by those who managed and controlled the issue of our paper currency. During the greater part of the period alluded to, more obstacles were opposed to the prosecution of our foreign trade than were ever at any other time put in action. Our goods were excluded from almost every port on the continent of Europe, and the difficulties that attended the importation of goods abroad were such as materially to enhance the cost of nearly every article brought here for consumption. At the same time, our demand for some kinds of foreign productions was increased by the purchases of warlike stores on the part of Government, and which purchases were necessarily made without reference to their prices. As an instance of this, hemp may be mentioned. In 1793, just before the breaking out of the war, the price had been 22*l.* per ton; it advanced progressively between that time and the peace of Amiens to 86*l.* per ton, but in 1802 fell to 32*l.* per ton. On the renewal of hostilities the price again advanced, and in 1808 and 1809 reached 118*l.* per ton. In 1815, after the second overthrow of Napoleon, the price fell to 34*l.*, and it has since gone considerably below that rate. On the other hand, all those descriptions of goods which were produced by us, or which necessarily came here from our colonies or elsewhere, in quantities beyond our own wants, were greatly depressed in price. At the same time, the prices on the Continent of the goods so abundant, and so depressed in our markets, were exorbitantly high. Gold and silver were the only articles of merchandise which could be safely taken in exchange for the goods of which we were purchasers from the Continent, and the vessels in which those were brought returned from our ports in ballast, while the prices of colonial produce and British manufactured goods were such in the respective markets as would have rendered their introduction into continental ports profitable to a most exaggerated degree. These circumstances, acting in conjunction with the reasonable, perhaps unavoidable, tendency of the Bank Restriction Act, under which the directors of that establishment were relieved from the dangers that would otherwise have attended any departure from prudence in the management of its issues, caused such an enhancement of the prices of the precious metals, when measured by the paper currency, as forced all our metallic money out of circulation. In times of war, when armies are to be kept in motion, gold especially is greatly in requisition. The difference in value of Bank of England notes and gold, estimated at the Mint price

during the years from 1803 to 1808, was no more than 2*l.* 13*s.* 2*d* per cent. In the seven following years, that excess in value of gold was raised in the following degrees:—

Years.	£.	s.	d.		Years.	£.	s.	d.	
1809	14	7	7	per cent.	1813	29	4	1	per cent.
1810	8	7	8	„	1814	14	7	7	„
1811	20	2	7	„	1815	13	9	6	„
1812	25	16	8	„					

The fall in the price of gold which occurred in 1814 was brought about by a reversal of the circumstances that have been explained above. Trade again flowed through its natural channels; we found anxious customers for goods with which our warehouses had been overloaded; prices which for those goods had been ruinously depressed, rose greatly and rapidly; our exports became suddenly so much greater than our imports, that gold flowed back into this country with greater rapidity than it had previously left us; and if at this time the currency had been managed with the smallest approach to prudence and ability, the prices of gold and bank-notes might have been brought into agreement without producing any of those commercial disasters which have usually attended such an adjustment. The calculations just given are founded upon the prices of gold in the month of August in each year. In December, 1814, the influx of gold had brought down its price to 4*l.* 6*s.* 6*d.* per ounce, or 9*l.* 19*s.* 5*d.* per cent. above the Mint price, although the issues of the Bank of England had been increased from 23,844,050*l.*, the amount in circulation at the end of 1813, when gold was 5*l.* 10*s.* per ounce, or 29*l.* 4*s.* 1*d.* per cent. above the Mint price, to 28,232,730*l.* Is it possible to doubt, with these figures before us, that if the Directors of the Bank had contented themselves with maintaining their circulation even at the high level of December, 1813, the price of the precious metals would have fallen to the level of our Mint price, and that the gold and silver that had flowed into our coffers would have remained in circulation without our being called upon to undergo the difficulties and losses which accompanied the resumption of specie payments when that measure could be no longer deferred?

A different course was followed. The Government, having large financial operations to make in winding up the accounts of the war, thought it most profitable to effect those operations in a redundant paper currency; the Bank Restriction Act was renewed from time to time to the great profit of that establishment, but to the manifest disadvantage of all other classes; an opportunity, the best that could possibly have been hoped for whereby to extricate ourselves from a false and dangerous position, was allowed to escape unimproved, and the gold which had sought our shores was again driven away by a redundant inconvertible paper currency. The conduct of the Bank of England in those days exhibited a most lamentable want of intelligence. Being

aware of the approach of the time at which the restriction which had been so profitable should cease, the Directors of that establishment made a large provision of bullion, which, as it could not be demanded in payment for their notes, remained in their coffers uninfluenced by the rate of foreign exchanges, or the market price of gold. Had this provision been accompanied by a corresponding diminution of their issues, the Directors might safely have pursued the course which they afterwards unsuccessfully adopted in anticipation of the termination of their Restriction Act; but no such prudence was allowed to influence their conduct, and when in April and September, 1817, notices were given to pay off in specie, first the notes in circulation dated prior to 1816, and afterwards those issued before 1817, the amount of the circulation was unusually large, and the price of gold fully 3 per cent. above that of bank-notes. Under these circumstances, the gold was withdrawn from the Bank coffers, so that in August, 1819, they were nearly exhausted, and it was necessary to hurry through Parliament an Act restricting the Directors from acting any further in conformity with the notices they had given.

In the same year (1819), the Act, commonly known as Mr. Peel's Act, was passed, which provided for the gradual resumption of specie payments. Under the provisions of this law, the Bank restriction was continued until February, 1820, from which time till October in the same year, the public was entitled to demand payment of notes in bullion at the rate of 4*l.* 1*s.* per ounce. From October, 1820, to May, 1821, payment might be demanded in bullion at the rate of 3*l.* 19*s.* 6*d.* per ounce; from May, 1821, to May, 1823, *bullion* might be demanded at the Mint price of 3*l.* 17*s.* 10½*d.* per ounce; and from the last-mentioned date, the current gold coin of the realm might be demanded. The provisions of this Act, as regarded the periods named, were anticipated, and on the 1st of May, 1821, the Bank had placed itself in the position to meet all of its outstanding engagements that should be demanded in specie.

Perhaps there never was in the whole history of legislature in this country any measure of internal policy which has occasioned such warm and long-continued controversy as this Act for the resumption of specie payments. Although more than a quarter of a century has elapsed since it came into full operation, the measure is still assailed with virulence by many who attribute to it every cloud which during all that time has obscured the commercial horizon, and hitherto scarcely any session has been suffered to pass without some attempt having been made to induce the legislature to consent to its repeal. Mr. Peel's Bill in reality did nothing more than establish certain steps or gradations through which we should pass in order to arrive at that which had always been contemplated and declared to be the settled purpose of the

legislature, and at what in fact would have become law by the simple efflux of the time fixed for the purpose in the Bank Restriction Acts.

The most fitting and best time for recurring to a legitimate and wholesome condition of the currency was, as we have seen, suffered to go by unimproved; but it is not therefore to be contended that our medium of exchange was for ever after to be inconvertible into that which it professed to represent: this is a proposition which no one who is entitled to be heard with attention upon this subject ever ventured to put forth. It has always been acknowledged, on all hands, that at some period or other it would be proper to employ a metallic currency, or that which is equivalent to it, paper convertible into coin or bullion, at the pleasure of the holder. The question of the return to cash payments was always considered to be one of time. Whether, now that the remedy has been applied, and that, choosing to attribute to its operation, every sinister effect that has since attended our commercial progress, the advocates who would have continued the restriction, are disposed to adopt the use of inconvertible paper as a permanent measure, is what few among those advocates would be willing to avow, although it is difficult upon any other ground to reconcile their subsequent proceedings with common sense. Why this, the richest country in the world, should be unable to effect that simplicity, in regard to its currency, which is found to be of easy attainment by the poorest states, is an enigma very difficult of solution. Nothing is more common than to hear it asserted by the advocates for an inconvertible currency, that if the statesmen and economists, by whom the return to cash payments was advocated in 1819, could have foreseen the consequences which are attributed—whether justly or not, is the question—to that measure, they would have forborne to give to it the sanction of their approval. In particular, Mr. David Ricardo has been repeatedly held up as having recanted the opinion expressed by him, that the fall in prices to be brought about by returning to a metallic standard would be no more than the difference between the market and the Mint prices of gold, which at the passing of Mr. Peel's Bill did not exceed 4 per cent. There is, in truth, no warrant whatever for this assertion, which, like many other figments, has been repeated until it has acquired the authority of truth. Mr. Ricardo never did assert, and never could have asserted, that when we should return to specie payments, prices would never fall more than 4 per cent. below their level at the time the bill was under discussion. It would have been as reasonable to affirm, that if, instead of returning to the old standard price of gold, 3*l.* 17*s.* 10½*d.* per ounce, the legislature had fixed the standard at the actual market price of the time, no fluctuation in prices would ever have occurred in future. Between June, 1833, and August, 1836, there was a progressive rise in the market value of goods, amounting, in the whole, to 35

per cent., and during all that time we were acting with a currency based upon gold at the same standard. Will it be contended that if, during the same period our currency had consisted of inconvertible paper promises, a like fluctuation in prices would have been impossible? Is it not, on the contrary, probable that the fluctuation would have been much more violent? It is precisely when prices are low that the advocates of extended issues of paper money are the most clamorous, their single object being to enhance the nominal value of their goods. They do not, or will not see, that it is only during the period in which the advance is going forward they can experience the advantages which they anticipate. When the rise shall have fully taken place, and prices shall have adjusted themselves, there will no longer be any benefit; but, on the other hand, there will be considerable and constant danger of a fall, which may be occasioned by various circumstances that would be inoperative under a different condition of things. In truth there is no safety from commercial disasters, in other words, there can be no permanent prosperity for the trading and producing classes, but in low and moderate, and therefore, steady prices.

It is generally held that the commercial crisis or "panic," as it is usually called, which occurred towards the end of 1825, was brought on by the conjoint operations of the Government and the Bank of England. It was the object of the Government, when peace was fully established, to make money abundant, and consequently cheap, in order to carry through various arrangements whereby the permanent charge upon the public income might be lessened. By the means adopted to this end, the market rate of interest was so far reduced at the beginning of 1822, that the 5 per cent. Annuities were raised to 6 or 8 per cent. above par, under which circumstances more than 140,000,000*l.* of that stock was converted into an annuity at 4 per cent., on terms by which the annual charge to the public was reduced by 1,122,000*l.* In 1824 the Chancellor of the Exchequer was enabled to effect a further saving of 380,000*l.* per annum, by the conversion of 76,000,000*l.* of 4 per cent. into 3½ per cent. Annuities.

If the fall in the rate of interest by which the Minister was enabled to effect those operations had occurred through natural causes, there could be no question as to the propriety of the step, but brought about as it was by means of the unnatural and forced extension of bank issues, it is hardly to be doubted that the mischief resulting from that extension has been productive of more loss to various classes of the community than can have been compensated to the nation at large by the saving. With a reckless disregard of consequences to a degree which can be attributed only to want of knowledge, the Directors of the Bank of England forced their paper into circulation, by proffering facilities to all classes of the community. Money was lent upon the

mortgage of land and upon the deposit of stock, in addition to liberal advances to commercial men, through the more legitimate channels of issue; and the Directors, at the same time, permanently crippled their means of controlling the currency by investing a large proportion of their issues in the purchase of an annuity for a term of years, known as the Dead Weight Annuity, an investment which must always be least marketable at those periods when it would be most desirable that the Bank should have all its resources at command. By these means speculation was excited, the business transactions of the country were multiplied unnaturally, and by the general rise of prices thus occasioned, our markets became overstocked with foreign produce, while the export trade was checked; the quantity of mercantile paper thrown into circulation aggravated the evil.

Between the beginning of 1822, and the month of April, 1825, the Bank had increased its circulation to the extent of four millions. At the latter date it was possessed of bullion and coin to the value of ten millions, but from that period to the following November, the drain upon its coffers was so rapid that no more than 1,300,000*l.* of that amount remained. Alarmed at this unequivocal indication, the Directors suddenly diminished the circulation to the extent of 3,500,000*l.*: a general feeling of distrust then took the place of the undue confidence which had previously pervaded the whole country; the notes of country bankers were returned upon them to such a degree that great numbers failed; a run upon several London bankers was followed by the stoppage of some of those establishments; commercial distress of the most frightful description ensued; and such was the want of confidence, that the wealthiest merchants were driven to make heavy sacrifices of property in order to provide for their immediate engagements. To use a memorable expression of Mr. Huskisson, "the country was within twenty-four hours of a state of barter." In this state of things there was no longer any evil to be apprehended from increasing the paper circulation, and the Bank Directors came forward with promptitude and liberality to the assistance of the trading classes, by lending money upon almost every description of property that could be offered, and by discounting bills without adhering to those rules by which they have ordinarily been guided in conducting this part of their business. Between the 3rd of November and the 29th of December, the amount of mercantile bills under discount at the Bank of England was increased from four millions to fifteen millions; the number of bills discounted on one particular day having been four thousand two hundred. The efforts thus made were assisted by a circumstance purely accidental. A box containing one-pound notes, which had been overlooked at the time when the Bank called in all its notes under five pounds, was discovered at the lucky moment, and in the opinion of Mr. Harman, one of the Directors

the timely issue of these notes "worked wonders—it saved the credit of the country." On the 3rd of December, 1825, the amount of Bank of England notes in circulation had been only 17,477,000*l.*; but on the 31st of that month was increased, by the means here mentioned, to 25,700,000*l.* This great increase was rendered necessary in order to replace the notes of country bankers that had been suddenly withdrawn from circulation, and to counteract the tendency to hoarding always indulged by the timid in periods of embarrassment; it was consequently not followed by any undue rise of prices, which had been suddenly thrown down in the previous convulsion; the foreign exchanges again turned in our favour, and the gold which, by the previous mismanagement had been forced abroad, again came back. The value of coin and bullion in the Bank in the last weeks of February, May, August, and November, 1825, respectively, was, 2,300,000*l.*, 4,800,000*l.*, 6,600,000*l.*, and 8,900,000*l.*; in the February following it amounted to 10,000,000*l.* The notes of the Bank in circulation in the same weeks amounted to—

£.	1826
24,900,000	February.
21,900,000	May.
21,300,000	August.
19,900,000	November.

At the close of 1826 the currency was therefore once more restored to an appearance of soundness.

At the time of its occurrence, this commercial crisis was attributed by many persons to the increase of paper money, put into circulation by the country banks; and in the parliamentary inquiries that followed, the principal object aimed at was the regulation of private banks of issue. The establishment by the Bank of England of branches in different parts of England, was suggested and recommended to that establishment by Lord Liverpool, then at the head of the Government, as a means of controlling the issues of private bankers, and in part also of substituting a more secure description of paper for that which circulated throughout the country. The principal aim of Parliament and the Government, on that occasion, was not so much the regulation of the currency, by means which would prevent the recurrence of the evils resulting from over issues, as it was to provide for the ultimate security of the holders of notes. They committed the mistake too commonly made of confounding currency with solvency, and of imagining that if the issuers of notes had sufficient capital to meet, at some time or other, the whole of their engagements, no other evil was to be apprehended.

At the same time, provision was made by Parliament for the establishing of joint-stock banks, which should be banks of issue; but this being considered an invasion of the privileges of the Bank of England —in favour of which establishment no other bank having more than six

partners was thought to be entitled legally to issue notes—a compromise was made with that establishment, and joint-stock banks of issue were not permitted to carry on their business nearer to London than sixty-five miles.

If the views of the legislature had been directed to produce a system by means of which a perfect control over the currency would be secured, a more unlikely method of attaining that object than the establishment of joint-stock banks could hardly be imagined. By their constitution, these establishments would naturally stand high in the public estimation. With large paid-up capitals and a numerous list of partners, the more ostensible of whom were usually men of property and consideration, while all were answerable for the debts of the company to the full amount of their fortunes, the public would take their paper with perfect confidence, and as considerable local influence would be always exerted in their favour, the case must be extreme indeed which would bring on a run against them. In fact, the greater the degree of reputation and credit such banks enjoy, the greater is the danger of their contributing to unsettle the currency. It has been shown by Colonel Torrens,* that except these banks act in concert with the Bank of England, their influence could never be severely felt, for otherwise any over-issues on their part would speedily be returned upon them; but this would not be the case when the issues of the Bank of England should also be in excess, so that their mismanagement would be felt only when it would act in aggravation of the mischief caused by the great regulator of the currency.

At the time when encouragement was given to the formation of joint-stock banks, Parliament took measures for withdrawing from circulation all notes of a lower denomination than 5*l.*; the granting of stamps for smaller notes was immediately stopped, and from the 5th of April, 1829, it was declared illegal for any banker to issue such. The policy of this measure met at the time with general concurrence, and although it has since been clamorously impugned, both in and out of Parliament, the number of those who question its propriety has always been small.

In what has been here said concerning the establishing of joint-stock banks as substitutes for other banks of issue, which could offer less satisfactory security for the amount of their engagements, it is by no means intended to question that they present, in that respect, great advantages to the public. But it may well be doubted, whether those advantages are in all respects such as were in contemplation at the time of their formation. Some of the numerous joint-stock banks, established since 1826, are not new establishments, but extensions of private banks previously in operation; others of them do not issue their own notes, but

* Letter to Lord Melbourne.

circulate the notes of the Bank of England, under an agreement with that corporation, which gives to them certain facilities in the way of discounts. This is a fact well known, and one which has been stated in evidence before Parliamentary committees; but it is not so well known that, in making these arrangements, the Bank of England does not merely give permission to the other parties to send bills for discount up to a certain sum, but stipulates that the sum so required shall always reach at least to that amount; providing thus for the extension of the issue of its own paper, whatever may be the wants of the commercial world or the rates of the foreign exchanges. It is not with a very good grace that the Bank Directors, while thus acting, complain of the excessive issues of other joint-stock associations, their rivals in the country districts. There is no doubt that a competition of this kind is likely to have an injurious effect, and that the spirit of competition renders all parties less prudent than they might otherwise be in acting upon those indications which should govern the amount of the circulation. In the event of that circulation proving redundant, the adoption of a prudent course by one or more establishments, in contracting their issues, might only offer inducements to others to endeavour to turn that course to their own peculiar advantage, by filling up the void that would be thus occasioned. The advantage to the country of confining to one establishment the power of issuing paper-money has of late years been very strongly insisted on by a principal advocate and apologist of the Bank of England. In his zeal for the interests of the establishment with which he is connected, that gentleman has not allowed himself to express a doubt as to the body which shall be intrusted with so important a function. The one bank of issue in his estimation is, without doubt, to be the joint-stock association with which he is connected. There is, however, a third alternative, which has been ably advocated by the late Mr. Ricardo,* and more recently by Mr. Clay,† Colonel Torrens,‡ and Mr. S. Ricardo,§—that of the establishment of a National Bank "under the management of competent functionaries, qualified by the possession, not of Bank Stock, but of economical science; appointed, not by the holders of Bank Stock, but by the Government; responsible, not to their co-proprietors, but to Parliament; and having for their first object and primary duty the protection not of their own corporate property, but of the general interest of the nation."‖

* Plan for the Establishment of a National Bank, by the late David Ricardo, Esq., M.P., 1824.

† Speech, on moving for a Committee on Joint-Stock Banks, with Reflections, &c., by W. Clay, Esq., M.P., 1836.

‡ Letter to Lord Melbourne, on the recent Derangement in the Money Market, and on Bank Reform, by R. Torrens, Esq., 1837.

§ A National Bank the Remedy for the Evils attendant upon our present System of Paper Currency, by Samson Ricardo, Esq., 1838.

‖ Torrens' Letter; 2nd Edition, page 64.

It is not necessary to enlarge, in these pages, upon the advantages that might be derived by the country from the adoption of the proposal here mentioned. Those persons who are alive to the importance of the subject will not satisfy themselves with any second-hand arguments, but will of course refer to works in which the establishment of a National Bank is advocated by men whose thorough acquaintance with the subject in all its bearings must be universally acknowledged. It may be proper, however, to guard against misconception, as to the meaning attached to the title of National Bank. It is not meant under this name to advocate the establishment of a bank which shall be subject to the control of the minister of the day, which, on the credit of the country, shall issue notes *ad libitum* to meet the wants or wishes of the Government, or whose paper shall be inconvertible, at the pleasure of the holder, into that which it professes to represent; but a bank, the managers of which, although appointed by the Government, shall not be removeable except by a vote of Parliament, upon proof of maladministration; who shall be obliged to buy or to sell bullion at certain fixed prices, which, while they would yield a small profit to the establishment, shall not hold out any inducement to speculative sales or purchases; and who shall be of ability to observe and to understand the symptoms of any approaching derangement in the currency, and to apply the necessary remedies. All experience has shown the mischief that results from the operation of banks of issue in connexion with executive governments; and the banking annals of our own country afford abundant proofs that no amount of ability employed, in conducting the operations of a great joint-stock association, will preserve the country from mismanagement, where there is any private interest or conflicting duty which tempts its managers to originate or to tolerate, and, it may be, to aggravate the mischief.

The shock given to mercantile credit, and the losses encountered by commercial men, in 1825, were of a nature and to an extent not likely to be soon forgotten. The lesson of prudence which they taught was enforced by the withdrawal of small notes from circulation, and for a considerable time speculation—at least in any extensive degree—was unseen. But it is the common effect of long-continued security to beget imprudence. The years which followed the panic of 1825 were marked, as we have seen, by a progressive extension of our chief branches of industry; the operations of trade and manufactures were, with some fluctuations, accompanied by a degree of general prosperity which naturally engendered the desire for increasing them, and this desire being met, in the middle of 1833, by some relaxation in the currency, prices began to rise. The circulation of the Bank of England, which throughout 1832 had been, on the average, 18,139,000*l.*, was increased to 19,060,000*l.* in the first half of 1833, and to 19,201,000*l.* in the second half of that year; and this increase, taken in conjunction with the pre-

sumed extension of issues on the part of joint-stock and private bankers —an extension which was rendered practicable only through the greater circulation of Bank of England notes—was quite sufficient to give that stimulus to commercial dealings which has been mentioned.

It is a point that has given rise to much controversy, whether under the *régime* of a circulating medium, convertible at pleasure into gold, any issues of paper can be made and kept out to an excess that will tend to raise the general prices of goods. Nor is the point at all settled among writers of the greatest authority upon the subject. By those who deny the possibility of such a result, it is urged, that at times when the currency has been full to redundancy, the prices of many important articles of consumption have fallen, and that, on the other hand, while the circulation has been undergoing a process of contraction, the prices of some goods have risen. The reasoning upon the subject, in the Report of the Bullion Committee of 1810, having been offered when the notes of the Bank of England were inconvertible, cannot be held applicable to the present altered condition of things. In the words of that Report—"An increase in the quantity of the local currency of a particular country will raise prices in that country exactly in the same manner as an increase in the general supply of precious metals raises prices all over the world." Many circumstances may arise to occasion the rise or fall in the prices of some kind of goods, but a general alteration of prices can only be occasioned by a permanent alteration in the amount of circulating money. An increase in the quantity of specie, arising from the greater productiveness of the mines, would raise prices in all countries alike, and would therefore occasion no serious derangement, nor be followed by any revulsion; whereas, a rise occasioned by the undue extension of a local and inconvertible currency, will be confined to the country in which it is issued, and must derange its commercial relations with foreign markets. It must be, therefore, at all times an interesting and a valuable question to determine, under such circumstances, whether prices are actually rising or falling, or stationary; and to ascertain the degree of such rise or fall, as an indication of the state of the currency. A rise or fall thus caused will generally—perhaps always—precede a variation in the foreign exchanges; and if ascertained, and a timely remedy were applied, the evil might be corrected before it could reach a point that would be indicated by any such disturbance of foreign trade as would affect the rates of exchange. This truth has long been felt and acknowledged; but it has at the same time been held impossible to determine, with the necessary degree of accuracy, whether any and what degree of fluctuation is shown by the prices of commodities generally. The disturbing causes above alluded to, when affecting articles with which the inquirer is more particularly conversant, may, unless the investigation is extended, give an impression contrary to the

fact. With regard to this objection, it may be said that it is only by a practical acquaintance with all the circumstances by which markets are temporarily governed, that a proper allowance can be made for every disturbing cause. With the possession of the necessary amount of practical knowledge, the difficulty of course ceases; but even without it, if we see that one kind or a few kinds of goods exhibit a tendency in regard to price different from that exhibited by the great bulk of articles, it must be easy for any one to make such inquiries into the facts as will qualify him to correct the discrepancy they might occasion, or to show the propriety of selecting, from among the list of articles subjected to examination, those which from extraneous causes would interfere with the correctness of the calculation. There is, however, another difficulty to be surmounted before the degree of fluctuation in prices generally can be correctly ascertained, which is this:—Some articles of merchandise are sold, and their prices are quoted by the pound or gallon, and others are quoted by the hundredweight or ton, or by the pipe, while the prices upon which the calculations of rise or fall must be made vary from a few pence for some articles, to more than one hundred pounds for others. How, then, it has been asked, can any conparison be made where the elements or data for that comparison exhibit such violent discrepancies? This difficulty will be overcome by the very simple expedient of reducing to one common element the price of every separate article in a long list of articles, whether that price is estimated by pence or by pounds, and then calculating the fluctuating price of each, up or down, and expressing it in decimal proportions. In this manner the rise or fall of a halfpenny in the price of a pound of pepper, quoted at fivepence, is made to indicate as great a rise or fall, and to exercise as great an influence in the scale, as a rise or fall of 5*s.* in a quarter of linseed, quoted at 50*s.*, or of 10*l.* in a ton of copper quoted at 100*l.* In each of these cases, the index price, whether it is 5*d.*, 50*s.*, or 100*l.*, being expressed by unity, or 1·0000, the supposed variations, if in advance, would in each case be expressed by the figures 1·1000—and if in reduction, by 0·900. Upon this principle a table has been constructed, taking for its basis or index the prices existing in the first week of January, 1833, and exhibiting at the beginning of every subsequent month the average fluctuations that have occurred in the prices of each one of 50 articles which comprise the principal kinds of goods that enter into foreign commerce. The sum of all these prices thus ascertained and expressed to four places of decimals, when divided by the number of articles in the list, will exhibit the mean variation in the aggregate of prices from month to month. Such a table constructed by any person possessing a moderate acquaintance with the general state of trade will, it is thought, exhibit the variations of prices with as near an approach to accuracy as the subject admits, and

the results will be altogether free from any of those specious fallacies which are often found to lurk at the bottom of speculative investigations.

In the construction of this table it was desirable to make choice of a period whence to commence the calculations, in which prices were considered to be at or near their natural level, and in which the mercantile community in this kingdom were believed to be principally engaged in their regular and legitimate business; a period, in fact, which should be free from any undue depression on the one hand, and without the excitement of speculation on the other. With this view, and also because it would embrace a time sufficiently long for showing the possible utility of such calculations, without too far multiplying the labour, the beginning of 1833 was chosen. It will be seen, on inspection of the table hereafter inserted (pages 431-2), that in one respect at least the choice of this period has been judicious. During the six months by which it was immediately followed, there may be said to have been no fluctuation in prices, but in the month of July there occurred a sudden rise of 3¼ per cent., which was increased to 7 per cent. in August, and to 10 per cent. in September; from which time prices were again remarkably steady, at that higher level, until the middle of the following year. Another rapid advance was then experienced, which continued until February, 1835, when prices had reached to 16 per cent. above the index price of January, 1833. At this further advance there was, again, considerable steadiness for six months, when a fresh impulse was given, which carried the average price rapidly upward, with an unvaried progression, until August, 1836. It will be seen that the average was then very nearly 35 per cent. higher than in the beginning of 1833. The measures adopted by the Bank of England in July and September, 1836, of raising the rate of their discounts, from 4 to 4½ and then to 5 per cent., and further of throwing discredit upon a class of mercantile bills which at that time represented a very large part of the floating commercial engagements of the country, acted instantaneously upon the prices of goods, and a fall began which was more rapid than the rise which has been described.

A gentleman,* whose views upon such subjects are entitled to be received with very great respect, gives it as his opinion, that the abundance or scarcity of circulating money has little or no influence upon prices, but that these are regulated by the wants and capabilities of the great body of the consumers, who cannot at any time be expected to use more of any articles because they may have a greater facility in raising money for commercial purposes. In support of this position, it is urged that, while prices generally were advancing in the degree that has been

* Mr. Thomas Tooke.

shown, grain, which in respect of the amount of money involved in buying and selling it, is perhaps of more importance than all the other articles that together form the sum of our commercial dealings, was as constantly and regularly falling in price. There can be no doubt of the fact being as here stated; but there cannot, on the other hand, be any doubt that this fall in the price of the principal article of food was the effect of natural causes, such as have already been adverted to above, and in a former section of this work; and which causes could not fail to have produced their natural effect in driving down the price, unless checked by such an issue of paper money as could only have been kept in circulation under a system of restriction from specie payments. The objection raised by the accomplished author of the *History of Prices* is no doubt true in the long run, where no bank restriction is allowed to interfere. It is no doubt true that, in the end, the prices of all commodities are governed by the wants and capabilities of the consumers, taken in conjunction with the cost of production. But this is not the question at issue. That question is, whether, as a consequence—a natural and almost a necessary consequence—of any excessive amount of currency, a speculative demand for goods is not created, one of the evils attendant upon which is, that it cannot be sustained, but when the immediate cause through which it was produced is withdrawn, gives place to a revulsion? Owing to the stimulus given to production, and the check offered to consumption—both of which are necessary consequences of high prices—that revulsion, when it arrives, finds us with glutted markets, and with a mass of commercial engagements greater than the ordinary wants of trade should occasion: the consequences of which state of things it cannot be necessary to describe. The fact adduced, that while the prices of imported articles have risen, grain became cheaper in a greater ratio, may be considered, under a restrictive system of corn-laws, as one cause of that general enhancement of prices. Owing to the custom which prevails in our grain markets of making sales at a short period of credit, a smaller sum of currency is needed for carrying on the trade in corn than would be required for the purchase and sale of an equal value of foreign goods, where longer credits are usually given. The amount of money engaged in the corn-trade must, however, be exceedingly great, so that any material fall in the price of corn must have an effect upon the currency equivalent to an increased emission of bank-notes.* With our foreign corn trade free, this consequence would not happen, because we should be pre-

* It must also be borne in mind that of the whole produce of grain, a portion, which has been variously estimated at from a half to two-thirds, is never brought to market for sale, but is consumed in the agricultural districts, and employed for seed. The proportion sold is, however, becoming greater every year, in consequence of the proportionately greater increase of the non-agricultural population, and the greater productiveness of the soil.

served from those violent fluctuations in the prices of farming produce which have attended upon the vicissitudes of seasons. A deficiency in the harvest always produces a more than equivalent rise in the price of farming produce; so that, on the supposition of 1000 quarters of wheat being required for the ordinary wants of the people, if the supply proved deficient to the extent of 100 quarters, the remaining 900 would sell for a greater amount of money than that which would be received for 1000 quarters under the case first supposed; while the consequence of an increased production to the same degree would be so to depress prices, that 1100 quarters would not produce so great an amount as the 900 quarters in the one case, or the 1000 quarters in the other. It would be incorrect, therefore, to suppose that the reduction of price is compensated, either as regards the receipts of the growers, or as it affects the money value of the entire harvest, by the increase of quantity, which might to a great degree be the case if the trade were free and prices were kept more effectually than now at their natural level, by extending the markets whence to supply our deficiency, or where to send our superabundance.

Mr. Gregory King, in his computation of the land product of England, given by Dr. Davenant, states that a defect in the harvest may raise the price of corn in the following proportions:—

Defect of	1-tenth,	raises the price	3-tenths.		
"	2	"	"	8	"
"	3	"	"	16	"
"	4	"	"	28	"
"	5	"	"	45	"

	£.
If we adopt these proportions as the basis for our calculations, it will be found that 1000 quarters, when the supply is just equal to the wants of the consumers will sell—the price being 50*s.* per quarter—for	2,500
If the harvest should prove deficient one-tenth, the remaining nine-tenths, represented by 900 quarters, would sell, at 65*s.*, for	2,925
A deficiency of one-fifth would leave 800 quarters, which, at 90*s.*, would produce	3,600
A deficiency of three-tenths would leave 700 quarters, which, the price being advanced to 130*s.*, would produce	4,550
A deficiency of four-tenths, leaving 600 quarters for sale at 190*s.*, would produce	5,700
A deficiency of one-half would raise the price to 275*s.*, at which rate 500 quarters would sell for	6,875

No means have hitherto been devised for ascertaining the actual produce of corn in the country, and it is superfluous to say that the above computation can be at the best only a reasonable estimate. Mr. Tooke is of opinion that it is not very wide of the truth, "from observations of the repeated occurrence of the fact, that the price of corn in this country has risen from 100 to 200 per cent. and upwards, when the utmost computed deficiency of the crops has not been more than between one-sixth and one-third of an average." On the other hand, we have seen, through the consecutive occurrence of three favourable harvests, in 1833, 1834,

and 1835, that the price of wheat has fallen from 55*s.* 5*d.* to 36*s.* 0*d.* per quarter, although, during the whole of those years every branch of industry throughout the country was in full activity, and all classes of the people were in full enjoyment of the means of living. It is to the circumstances that affect the labourers and artisans of the country that we must look for the causes that influence the greater or less consumption of corn. The classes who are more at ease in their circumstances subsist in a far greater degree upon more costly kinds of food, and do not consume more bread than ordinary, in years of abundance. This may not be the case with those who are in less comfortable circumstances; but with regard to them, even, it is certain that, when bread is cheap, they do not increase their use of it so as to absorb a proportion of their earnings equal to that which they so expend in scarce or ordinary seasons, but employ a greater part of their wages in the purchase of comforts; and this consideration renders it clear why, as above stated, so large an amount of money is not paid for an increased as is paid for a diminished supply of this first necessary of life; and also why, in a time of scarcity, the mass of the town population being driven towards the more exclusive use of bread—which will still be the cheapest food upon which they will subsist—the demand for other articles of consumption and convenience will be lessened, and their prices consequently diminished.

Wherever the system of virtually excluding the farming produce of other countries is suffered to exist, the occurrence of a harvest of more than average productiveness, should act as the signal to those who have the control of the currency to be more particularly on their guard against the consequences of redundancy, which should be prevented by a timely lessening of the sum in circulation. This doctrine may not be very palatable to those who, depending upon the produce of the soil, may see, as its practical effect, only a further depression in the price of grain. On every occasion that has arisen since the return of the Bank to specie payments, when an abundant harvest has caused great depression in the prices of corn, it has been the fashion to attribute the consequent "agricultural distress" to a deficiency of circulating money, and a clamour has been raised against the law which prevents the issue in England of notes under 5*l.* If, on such occasions, the wish of these advocates for a greater abundance of paper money had been gratified, there is but little ground for believing that they would have really been benefited as they desired to be, at the expense of the remaining classes of the community, because the same system which tended to raise the price of what they had to sell would equally have raised the prices of all they required to buy; and as the enhancement of prices would in all cases be principally the effect of speculative demand, there is reason for believing that speculators would not choose, as an object

for purchase, an article which was known to be held in undue abundance, while other articles were to be found against which so strong an objection would not apply; and for this reason the rise in the prices of agricultural produce, if experienced at all, would be so in a less degree than the prices of other commodities, a result which would be highly detrimental to agriculturists.

If the suggestion that has been here thrown out is entitled to any consideration, it is clear that, to enable us to judge with correctness whether the currency be at any time redundant or otherwise, we require to ascertain other facts than that of the amount of bank notes in circulation. There is, perhaps, no single circumstance more pregnant with instruction on this subject than a general rise or fall of prices when viewed and adjusted in combination with local or temporary causes of disturbances. With this end in view it would be highly instructive if tables of prices were made and recorded, at short intervals, accompanied by remarks explanatory of any peculiarities which may be thought to offer disturbance to the correctness of their result. It is not meant by this to recommend a mere record of the prices of goods, such as would be afforded by a collection of prices-current, but a calculation conducted upon the plan already described, or some other that should be equivalent to it, and which would afford, on inspection, a correct comparative view of the average fluctuations that should occur. Such tables would not be without benefit, even when they had been continued for only a few years; but when they should have been carried over a considerable period of time, and the results which they would present could be studied in conjunction with actual occurrences, we might be enabled to read the signs they would present, so as to secure ourselves, with certainty, from those alternations which now so frequently bring alarm and ruin to commercial men. The following table is offered as the commencement of such a series of calculations. The details would occupy a very considerable space, without yielding an adequate advantage, for which reason the results only are presented :—

Table, showing the Amount of Bank Notes in Circulation, the Rates of Exchange with Hamburg and Paris, and the comparative Prices of Wheat, and of Fifty Articles of Commerce (including Wheat), at the beginning of each Month, from January, 1833, *to December,* 1837.

MONTH.	Bank of England Notes in Circulation, according to the Average advertised in the London Gazette.	Country Bank Notes in Circulation, as advertised in the London Gazette.	Bullion held by the Bank of England (average), as advertised in the London Gazette.	Exchange with Hamburg.	Exchange with Paris, three days' Sight.	Comparative Price of Wheat in England.	Comparative Price of 50 Articles in London.
	£.	£.	£.				
1833. Jan.	17,912,000	..	8,983,000	13·14	25·95	1·0000	1·0000
Feb.	18,318,000	..	9,648,000	13·14½	25·85	0·9800	1·0034
Mar.	18,731,000	..	9,959,000	13·15½	25·90	0·9752	0·9999
April	19,319,000	..	10,068,000	13·15½	25·90	0·9785	0·9995
May	19,430,000	..	10,165,000	13·15	25·90	0·9892	0·9933
June	19,312,000	..	10,324,000	13·15	25·90	0·9907	0·9977
July	19,254,000	..	10,673,000	13·15½	25·85	0·9907	1·0360

Table, showing the Amount of Bank Notes in Circulation, the Rates of Exchange with Hamburg and Paris, &c.—continued.

MONTH.	Bank of England Notes in Circulation, according to the Average advertised in the London Gazette.	Country Bank Notes in Circulation, as advertised in the London Gazette.	Bullion held by the Bank of England (average), as advertised in the London Gazette.	Exchange with Hamburg.	Exchange with Paris, three Days' Sight.	Comparative Price of Wheat in England.	Comparative Price of 50 Articles in London.
	£.	£.	£.				
1833. Aug.	19,526,000	..	11,005,000	13·13⅜	25·75	1·0200	1·0717
Sept.	19,780,000	..	11,078,000	13·13⅛	25·70	1·0215	1·0996
Oct.	19,823,000	..	10,905,000	13·11⅝	25·50	1·0015	1·0951
Nov.	19,202,000	..	10,461,000	13·12¼	25·50	0·9644	1·0932
Dec.	18,659,000	..	10,134,000	13·11	25·55	0·9429	1·0863
1834. Jan.	18,216,000	10,152,104	9,948,000	13·10¼	25·40	0·9166	1·1094
Feb.	18,377,000	..	9,954,000	13·11	25·35	0·9073	1·0996
Mar.	18,700,000	..	9,829,000	13·10	25·27½	0·8995	1·1026
April	19,097,000	10,191,827	9,431,000	13·11¼	25·40	0·8826	1·1014
May	18,978,000	..	8,884,000	13·12	25·45	0·8826	1·0900
June	18,922,000	..	8,645,000	13·11½	25·45	0·8811	1·1029
July	18,895,000	10,518,682	8,659,000	13·12	25·45	0·8903	1·1087
Aug.	19,110,000	..	8,598,000	13·11	25·32½	0·8995	1·1102
Sept.	19,147,000	..	8,272,000	13·12	25·42½	0·8826	1·1191
Oct.	19,126,000	10,154,112	7,695,000	13·12	25·40	0·8133	1·1267
Nov.	18,914,000	..	7,123,000	13·11½	25·42½	0·7716	1·1307
Dec.	18,694,000	..	6,781,000	13·11	25·40	0·7793	1·1470
1835. Jan.	18,012,000	10,659,828	6,741,000	13·10½	25·40	0·7607	1·1503
Feb.	18,099,000	..	6,693,000	13·10¾	25·40	0·7562	1·1606
Mar.	18,311,000	..	6,536,000	13·11	25·45	0·7546	1·1681
April	18,591,000	10,420,160	6,329,000	13·13	25·62½	0·7391	1·1637
May	18,542,000	..	6,197,000	13.11¾	25·45	0·7251	1·1580
June	18,460,000	..	6,150,000	13·13¼	25·60	0·7297	1·1672
July	18,315,000	10,939,801	6,219,000	13·13½	25·60	0·7421	1·1686
Aug.	18,322,000	..	6,283,000	13·14¼	25·60	0·7854	1·1697
Sept.	18,340,000	..	6,326,000	13·14¼	25·60	0·7732	1·1855
Oct.	18,240,000	10,420,623	6,261,000	13·14½	25·62½	0·7128	1·1892
Nov.	17,930,000	..	6,186,000	13·14½	25·62½	0·6821	1·2198
Dec.	17,321,000	..	6,626,000	13·13¾	25·62½	0·6790	1·2327
1836. Jan.	17,262,000	11,134,414	7,076,000	13·14	25·65	0·6666	1·2555
Feb.	17,427,000	..	7,471,000	13·13¾	25·57½	0·7333	1·2640
Mar.	17,739,000	..	7,701,000	13·13½	25·55	0·8259	1·2762
April	18,063,000	11,447,919	7,801,000	13·13¼	25·55	0·8592	1·2915
May	18,154,000	..	7,782,000	13·13	25·50	0·8870	1·2990
June	18,051,000	..	7,663,000	13·13¼	25·52½	0·9222	1·3120
July	17,899,000	12,202,196	7,362,000	13·12½	25·50	0·9381	1·3290
Aug.	17,940,000	..	6,926,000	13·12	25·40	0·9381	1·3460
Sept.	18,061,000	..	6,325,000	13·12	25·35	0·8907	1·3287
Oct.	18,147,000	11,733,945	5,719,000	13·13¼	25·37½	0·8740	1·3233
Nov.	17,936,000	..	5,257,000	13·12½	25·40	0·9566	1·3289
Dec.	17,361,000	..	4,545,000	13·12½	25·50	1·1037	1·2920
1837. Jan.	17,422,000	12,011,697	4,287,000	13·12	25·55	1·0953	1·2682
Feb.	17,868,000	..	4,032,000	13·11¼	25·42½	1·0880	1·2477
Mar.	18,178,000	..	4,048,000	13·11½	25·47½	1·0325	1·2449
April	18,432,000	11,031,063	4,071,000	13·13	25·60	1·0494	1·2255
May	18,480,000	..	4,190,000	13·13¾	25·60	1·0277	1·1865
June	18,419,000	..	4,423,000	13·13¾	25·45	1·0061	1·1591
July	18,202,000	10,872,437	4,750,000	13·13¾	25·50	1·0540	1·1422
Aug.	18,462,000	..	5,754,000	13·14	25·55	1·1120	1·1336
Sept.	18,814,000	..	6,303,000	13.13½	25·55	1·0462	1·1321
Oct.	18,716,000	10,142,049	6,856,000	13·13½	25·55	1·0463	1·1450
Nov.	18,344,000	..	7,432,000	13·13½	25·55	0·9444	1·1586
Dec.	17,998,000	..	8,172,000	13·11¾	25·50	0·9721	1·1689

The circulation of notes payable to bearer in England, and the amount of bullion in the Bank of England, at the end of each quarter, during the years 1838 to 1849, was

YEARS.	CIRCULATION—ENGLAND.				Bullion in the Bank of England.
	Bank of England.	Private Banks.	Joint Stock Banks.	Total.	
	£.	£.	£.	£.	£.
1838. March .	18,987,000	7,005,472	3,921,039	29,913,511	10,126,000
June .	19,047,000	7,383,247	4,362,256	30,792,503	9,722,000
Sept. .	19,359,000	7,083,811	4,281,151	30,723,962	9,437,000
Dec. .	18,469,000	7,599,942	4,625,546	30,694,488	9,362,000
1839. March .	18,208,000	7,642,104	4,617,363	30,557,467	7,073,000
June .	18,101,000	7,610,708	4,665,110	30,376,818	4,344,000
Sept. .	17,960,000	6,917,657	4,167,313	29,044,970	2,816,000
Dec. .	16,732,000	7,251,678	4,170,767	28,154,445	2,887,000
1840. March .	16,818,000	6,893,012	3,940,232	27,651,244	4,360,000
June .	16,871,000	6,973,613	4,138,618	27,983,231	4,434,000
Sept. .	17,263,000	6,350,801	3,630,285	27,244,086	4,453,000
Dec. .	16,446,000	6,575,838	3,798,155	26,819,993	3,511,000
1841. March .	16,537,000	6,322,579	3,644,258	26,503,837	4,339,000
June .	16,632,000	6,444,395	3,807,055	26,883,450	5,098,000
Sept. .	17,481,000	5,768,136	3,311,941	26,561,077	4,975,000
Dec. .	16,972,000	5,718,211	3,217,812	25,908,023	4,486,000
1842. March .	16,952,000	5,299,455	2,990,986	25,242,441	7,006,000
June .	17,795,000	4,995,594	2,850,532	25,641,126	7,846,000
Sept. .	19,714,000	5,098,259	2,819,749	27,632,008	9,816,000
Dec. .	19,562,000	5,085,885	3,001,590	27,649,475	11,054,000
1843. March .	19,539,000	4,716,506	2,862,986	27,118,492	11,420,000
June .	18,411,000	4,503,478	2,863,779	25,778,257	11,873,000
Sept. .	19,132,000	4,288,180	2,763,302	26,183,482	12,250,000
Dec. .	18,791,000	4,533,048	3,161,033	26,485,081	12,996,000
1844. March .	21,122,000	4,983,646	3,502,363	29,608,009	15,784,000
June .	21,327,000	4,743,057	3,665,104	29,735,161	15,900,000
Sept. .	20,954,405	4,338,569	3,158,290	28,451,264	15,022,256
Dec. .	20,107,905	4,442,808	3,059,434	27,610,147	14,878,416
1845. March .	19,724,130	4,452,961	3,147,797	27,324,888	15,471,410
June .	20,214,435	4,399,110	3,131,097	27,744,642	16,051,610
Sept. .	20,359,495	4,355,485	3,142,226	27,857,206	14,068,820
Dec. .	20,257,415	4,481,246	3,162,340	27,901,001	12,675,925
1846. March .	19,620,000	4,515,354	3,176,655	27,312,009	13,987,535
June .	19,564,030	4,457,140	3,128,190	27,149,360	16,015,659
Sept. .	20,230,290	4,390,274	3,111,622	27,732,186	16,224,352
Dec. .	19,641,560	4,526,006	3,138,498	27,306,064	15,066,691
1847. March .	19,524,270	4,542,057	3,248,528	27,314,855	11,015,583
June .	17,911,430	4,386,282	3,088,442	25,386,154	10,526,405
Sept. .	18,605,600	4,175,774	2,954,284	25,735,658	8,782,703
Dec. .	17,956,150	3,528,273	2,410,222	23,894,645	12,236,526
1848. March .	17,684,600	3,598,279	2,572,343	23,855,222	15,210,866
June .	17,484,890	3,628,346	2,573,630	23,686,866	13,646,055
Sept. .	17,549,020	3,485,319	2,471,965	23,506,304	13,678,493
Dec. .	17,129,630	3,500,607	2,567,114	23,197,351	15,000,676
1849. March .	17,945,910	3,466,975	2,590,876	24,003,761	15,197,684
June .	17,934,390	3,515,557	2,661,306	24,111,253	15,120,811
Sept. .	18,131,060	3,462,306	2,577,234	24,170,600	15,254,383
Dec. .	18,318,270	3,539,754	2,601,159	24,459,183	17,080,642

The circulation of notes in Scotland and Ireland respectively in each quarter of the years 1842 to 1849, was—

YEARS.	Scotland.	Ireland.	YEARS.	Scotland.	Ireland.
	£.	£.		£.	£.
1842. March .	2,811,109	5,596,375	1846. March .	3,018,681	7,444,960
June .	2,887,038	4,670,709	June .	3,508,655	6,972,026
Sept. .	2,648,549	4,469,037	Sept. .	3,446,787	6,588,175
Dec. .	3,091,228	5,243,380	Dec. .	3,787,151	6,515,414
1843. March .	2,457,604	5,105,140	1847. March .	3,360,348	6,704,736
June .	2,869,863	4,839,880	June .	3,647,314	5,464,951
Sept. .	2,659,176	4,675,896	Sept. .	3,497,525	5,048,310
Dec. .	2,901,746	5,850,839	Dec. .	3,341,317	5,196,116
1844. March .	2,610,712	5,997,172	1848. March .	2,951,937	5,107,335
June .	3,117,988	5,568,577	June .	3,437,587	4,661,346
Sept. .	2,940,456	5,411,412	Sept. .	3,021,307	4,265,280
Dec. .	3,486,818	6,845,321	Dec. .	3,276,826	4,777,633
1845. March .	2,950,870	7,052,177	1849. March .	2,935,120	4,401,750
June .	3,333,906	6,494,132	June .	3,380,902	4,046,473
Sept. .	3,341,397	6,259,855	Sept. .	3,139,414	4,133,928
Dec. .	3,336,409	7,404,366	Dec. .	3,212,448	4,634,503

An Act was passed in 1844, renewing for ten years the charter of the Bank of England. By this Act, which was represented by Sir Robert Peel as "the complement of the Act of 1819," great changes were introduced into the system by which it had previously been attempted to regulate the currency of the country.

The privilege of issuing paper money within a circle of sixty miles radius round London, was continued exclusively to the Bank of England, but with the following restrictions. The establishment was divided into two departments wholly distinct from each other, placed under separate officers and keeping separate accounts. One of these departments was continued for the ordinary purposes of banking, while the other was created for the single purpose of regulating the issue of notes, the amount of which was in no case ever to exceed fourteen millions of pounds in addition to the actual amount of gold and silver bullion lodged by the banking department in the department of issue. The sum of 14,000,000*l.* which the Bank is thus authorised to issue beyond the value of bullion in its coffers, is made up of 11,000,000*l.*, the amount of its capital which has been lent permanently to Government, at 3 per cent. interest, and 3,000,000*l.* of public securities, bearing interest, which the bank of issue is empowered to hold for that purpose. Under this system, the Bank must be always provided with the means of discharging on demand all its notes in excess of 14,000,000*l.*, for which remaining sum the public holds, in the hands of the Government, the best possible security, that of the property of the Bank. No question as to the solvency of the establishment can, therefore, ever arise, while it is hardly possible to conceive that a drain upon the treasure of the

Bank should ever be carried so far as to reduce its outstanding notes to so low a level as 14,000,000*l.* The safety of the Bank, as well as that of the public, may be considered as secured, so far as the question of credit is at stake. It remains, however, to be proved whether, under all circumstances that may arise, the security of the public is thus equally well attained as respects the management of the currency; and there are not wanting men of great practical experience in such questions, who have expressed strong doubts upon this subject. It would be out of place to enter upon the controversy here. Those who desire to know the opinions to which reference has been made, will naturally consult the writings of the accomplished men who have published their reasonings upon the subject, particularly those of Mr. Tooke and Mr. Loyd (now Lord Overstone), who take opposite views regarding it, and the series of articles written by Mr. James Wilson on "Currency and Banking," published first in the *Economist* weekly paper, between March and May, 1845, and since collected in an octavo volume.*

It must be evident that any attempt to regulate the currency by controlling the issues of the Bank of England, must fail of its object, unless an equal control were exercised over the issues of private and joint-stock banks. It was accordingly provided by the Act of 1844, that "no person other than a banker, who on the 6th of May, 1844, was lawfully issuing his own notes, shall make or issue bank-notes in any part of the United Kingdom." The privilege of such issue was continued to those persons; but the amount that may be issued in each case was restricted to the amount which constituted their actual issues upon the average of the two preceding years.

Further, the most perfect publicity was provided as regards the amount of issues by weekly publications thereof in the *London Gazette*.

* It affords a strong *primâ facie* corroboration of the view taken by Mr. Tooke upon this important subject, that on the first occasion of monetary difficulty, which arose in 1847, after the passing of the Act of 1844, the Bank received authority from the Government to disregard the restriction which, as respects its issues, was imposed by the existing law.

CHAPTER XIII.

COINAGE.

Bad State of the Coinage at the beginning of the Century—Disappearance of Coin—Bank Tokens—Moneys coined 1801 to 1849—Diminished weight of Silver Coins—Proposal of Double Standard—Copper Coinage 1821 to 1849.

THE condition of the country in regard to the coined money in circulation during the early years of the present century was exceedingly unsatisfactory. Of silver coin issued from the Mint there was scarcely any. The shillings and sixpences that passed from hand to hand by common consent were almost all of them blank pieces of silver, intrinsically worth less than half the sums at which they were current. Guineas, half-guineas, and gold pieces of the value of seven shillings, were occasionally seen; but the rapid advance in the market price of gold, as explained in a former Chapter, at length effectually drove all coins of that metal from circulation. The place of guineas was supplied by bank notes, of the denominations of one and two pounds, and to provide the community with the means for carrying on the smaller transactions of daily traffic, different expedients were successively adopted. At first, Spanish dollars stamped with a diminutive impress of the King's head were issued by Government, at the rate of 4*s.* 6*d.* each; but these soon disappeared, and the Bank of England was authorised to issue "tokens," and put into circulation pieces of the respective nominal values of 1*s.* 6*d.*, of 3*s.*, and of 5*s.* The last of those tokens consisted of Spanish dollars, the original impress upon which was removed, and a different one given by means of a powerful press. The smaller tokens—those of 3*s.* and 1*s.* 6*d.*—were intrinsically so far below the nominal value, that they remained in circulation until called in; but the dollars, or five shillings tokens, were so much nearer in value to their nominal rate, that on a further advance in the market price of silver bullion, it became necessary to raise their nominal value 10 per cent., causing them to pass for 5*s.* 6*d.* each.

An Account of the Value of Gold and Silver Moneys coined at the Mint in each Year from 1801 *to* 1849.

Years.	Gold.	Silver.	Total.	Years.	Gold.	Silver.	Total.
	£.	£.	£.		£.	£.	£.
1801	450,242	53	450,295	1826	5,896,461	608,606	6,505,067
1802	437,018	62	437,080	1827	2,512,636	33,020	2,545,656
1803	596,444	72	596,516	1828	1,008,559	16,288	1,024,847
1804	718,397	77	718,474	1829	2,446,754	108,260	2,555,014
1805	54,668	183	54,851	1830	2,387,881	151	2,388,032
1806	405,105	Nil.	405,105	1831	587,949	33,696	621,645
1807	Nil.	108	108	1832	3,730,757	145	3,730,902
1808	371,744	Nil.	371,744	1833	1,225,269	145	1,225,414
1809	298,946	115	299,061	1834	66,949	432,775	499,724
1810	316,935	121	317,056	1835	1,109,718	146,665	1,256,383
1811	312,263	Nil.	312,263	1836	1,787,782	497,719	2,285,501
1812	Nil.	52	52	1837	1,253,088	75,385	1,328,473
1813	519,722	90	519,812	1838	2,855,364	174,042	3,029,406
1814	Nil.	161	161	1839	504,310	390,654	894,964
1815	..	Nil.	Nil.	1840	..	207,900	207,900
1816	..	1,805,251	1,805,251	1841	378,472	89,496	867,968
1817	4,275,337	2,436,298	6,711,635	1842	5,977,051	192,654	6,169,705
1818	2,862,373	576,279	3,438,652	1843	6,607,849	239,580	6,847,429
1819	3,574	1,267,273	1,270,817	1844	3,563,949	610,632	4,174,581
1820	949,516	847,717	1,797,233	1845	4,244,609	647,658	4,892,267
1821	9,520,758	433,686	9,954,444	1846	4,334,912	559,548	4,894,460
1822	5,356,787	31,430	5,388,217	1847	5,158,440	125,730	5,284,170
1823	759,748	285,272	1,045,020	1848	2,451,999	35,442	2,487,441
1824	4,065,075	282,070	4,347,145	1849	2,177,955	119,592	2,297,547
1825	4,580,919	417,535	4,998,454				

With the exception of an insignificant amount of small coins struck for the purpose of distribution as alms by the King, and known as Maundy Money—from the circumstance of its being given away on Maundy Monday—there was not any silver coinage by the State until 1816. Previous to that year 12 oz. of standard silver, containing 11 oz. 2 dwts. of pure silver, and 18 dwts. alloy, were by law to be coined into 62 shillings; but in that year an Act was passed making only gold coin legal tender in all payments of more than 40*s.*, and providing that the pound or 12 ounces troy of standard silver should be coined into 66 shillings, giving to the State, as seignorage, the difference between the market price of silver of the Mint standard, and 5*s.* 6*d.* per ounce. Before the passing of this Act (56 Geo. III., c. 68) silver coin of standard weight and fineness was a legal tender to the amount of 25*l.* The market price of silver has not been such since the year 1816 as to afford any temptation for melting or exporting silver coins issued at this rate of depreciation, and the country has continued to be amply supplied with silver coins of every denomination.

It has been proposed at various times, by persons whose names give considerable weight to their recommendation, that we should adopt a double standard, and make silver as well as gold a legal tender to any amount. Under such a state of the law, it would be necessary again to coin silver money of standard fineness at the Mint rate of 5*s.* 2*d.* per ounce; and if, owing to any sudden mercantile demand, or such a

commercial derangement as we have too often witnessed, it should ever become profitable to export silver, we might then be subjected to very great inconvenience. On the other hand, it must be allowed that, if such an option as that supposed were given—viz., that of paying in whichever coin might best suit the debtor,—the Bank of England, in meeting a foreign demand, might occasionally realize large profits, from which it is at present shut out; but this is the only advantage that can be anticipated from the establishment of a double standard, and it would surely be unwise to incur the risk of a general inconvenience for the sake of a profit that might possibly result to a private body.

Copper coin is issued from the Mint at the rate of 224*l.* per ton, or more than 100 per cent. above its market value; there can hardly be expected, therefore, to arise any temptation for its conversion to any other purpose. The copper coinage which was issued in 1797, in place of the old defaced Tower halfpence, was of the intrinsic value of 149*l.* 6*s.* 8*d.* per ton; but as the market value of the metal rose in 1806 to 200*l.* per ton, it has since then been thought advisable to adopt the rate above mentioned. The value of copper coin issued since the peace has been as follows:—

Years.	£.	Years.	£.
1815 to 1820	Nil.	1836	1,792
1821	2,800	1837	4,592
1822	43,355	1838	1,568
1823	32,480	1839	5,040
1824	Nil.	1840	3,136
1825	9,408	1841	3,808
1826	50,400	1842	Nil.
1827	19,712	1843	10,080
1828	2,464	1844	7,246
1829	1,568	1845	6,944
1830	2,464	1846	6,496
1831	7,392	1847	8,960
1832	448	1848	2,688
1833	Nil.	1849	1,792
1834	3,136		
1835	2,688		£242,457

Previous to the copper coinage above mentioned, as having been made in 1797, the country was inundated from one end to the other by coins put into circulation as halfpence, and which were struck by tradesmen or other private adventurers. The encouragement to this course was found in the then existing state of the small coinage. The halfpence put into circulation by private parties were some of them creditable specimens of the art of coining; and all of them, although intrinsically below their nominal value, were yet considerably nearer to it than the halfpence otherwise circulating. When the State undertook, in 1797, to issue new copper coins, the circulation of these private tokens was prohibited.

CHAPTER XIV.

WAGES.

Bad Seasons 1795–1800—Privations of Working Classes—Decreased Number of Marriages—Greater competition and exertion among Labourers when Food is dear—Wages not readily adjusted to fluctuations of Seasons—Influence of those fluctuations upon character of Labourers—Weekly Wages of Artisans, &c., 1800–1836—Benefits resulting from Cheap Clothing—Insufficiency of Charitable Aid as a Substitute for Regular Employment—Trials of the Poor—Motives for Self-dependence—Wages in some Foreign Countries.

THE present century opened inauspiciously for the working classes in this kingdom. The harvest of 1795 had been very deficient. The quality was excellent, but the quantity so short that, at the close of the season, the price of wheat had advanced to six guineas per quarter. The extraordinary measures that had been adopted by Government of buying up wheat and depositing it in granaries, and also of forcibly seizing, on the high seas, neutral vessels loaded with grain, and compelling the masters to sell their cargoes to the government agents,—measures exceedingly objectionable upon many grounds—had the effect of preventing a still greater advance of prices, which might otherwise have occurred. The season of 1796 was favourable, and the price fell from 122*s.* at the beginning, to 56*s.* at the end of the year. In 1797 the quality was bad, and the quantity deficient, and the harvest of 1798 was only moderately abundant; there was consequently no store of grain to bring in aid of the deficient harvest of 1799, immediately after which the price rose to 92*s.* 7*d.* per quarter. In 1800 the quality was injured by excessive rains, and the quantity was so short, that the average price of wheat, on the 1st of January, 1801, had advanced to 139*s.* per quarter; every other article of provisions being proportionately dear. Before the harvest of 1801 was secured, the price of wheat, in the London market, reached 180*s.* per quarter, and the quartern loaf was, for four weeks, as high as 1*s.* 10½*d.*

The privation and misery which, under these circumstances, fell to the lot of the poor, were exceedingly great, notwithstanding the anxious attention given to the subject by the legislature, and the exercise of the most extensive private benevolence. So great and alarming was

the dearth, that it became a matter of principle, even with the wealthy classes, to economise as much as possible in their families the use of the principal article of food, in order that more might remain, and at a less exorbitant price, for the use of the poor. The best test that can be offered singly of the privations at that time endured by the bulk of the people is to be found in the marriage registers. The numbers exhibited therein, for each of the years from 1794 to 1801 inclusive, were as follow:—

Years.	Marriages.	Years.	Marriages.
1794	71,797	1798	79,477
1795	68,839	1799	77,557
1796	73,107	1800	69,851
1797	74,997	1801	67,288

It is curious to observe how intimate a relation exists between the price of food and the number of marriages. The falling off in that number observable in 1795, 1800, and 1801, was, in each year, very marked in its character. The harvest of 1801 was moderately abundant, and as, in addition to the home produce, the importations of wheat under the stimulus of a bounty, had been very large (sec. 2, chap. i.) the price fell, in the latter part of the year, to less than half what it had been before the harvest. In 1802 the crops, although not very abundant, yielded enough, with a small importation, for our wants, and prices became still more moderate. The number of marriages in England in these two years, according to the registers, was 90,396 in 1802, and 94,379 in 1803. In March, 1804, the average price of wheat was as low as 49*s.* 6*d.* per quarter, but the harvest in that year was far from being good, and, towards Christmas, the price was double what it had been nine months before. The price continued high until the result of the harvest of 1805 could be known. This proving more favourable, and a considerable quantity of foreign grain having been imported, prices again receded, but not extensively. The number of marriages in 1804 and 1805 again showed the restraining effect in this respect of high prices, having been 85,738 and 79,586, respectively.

The relation that subsists between the price of food and the number of marriages is not confined to our own country, and it is not improbable that, had we the means of ascertaining the facts, we should see the like result in every civilized community. We possess the necessary returns from France, and these fully bear out the view that has been given. In 1808, the price of wheat being 52*s.* 5*d.* per quarter, the number of marriages in that country was 220,933; in the following year the price of wheat fell to 38*s.*, or 27 per cent., and the number of marriages rose to 267,964; in 1811 the price rose to 67*s.*, and the marriages fell off to 203,731. Between 1816 and 1817 the price of wheat rose nearly 50 per cent., and the marriages diminished from 249,247 to 205,877. The

influence here ascribed to this cause has been even more striking during the three years ending with 1835, because the low price of wheat which continued through those years was accompanied by a constant augmentation in the number of marriages. The average prices during the four years, 1832 to 1835, and the number of marriages that occurred in each of those years, were—

Years.	Marriages.	*s.*	*d.*	
1832	242,469	52	0	per quarter.
1833	263,553	38	0	„
1834	271,220	34	3	„
1835	275,508	34	5	„

It will be inferred from the foregoing details, that the rate of wages adjusts itself but slowly to the varying necessities of the working classes as influenced by the seasons. It may, and indeed sometimes does happen, that a sudden and violent rise in the prices of the necessaries of life acts with twofold effect against the industrious poor. In order to provide the wonted supply of food for their families, men employed at piecework are induced to task their labour more severely than usual, and by this means soon create against themselves a scarcity of employment, which induces them to underbid each other in the labour market, until they end by procuring in return for greatly increased exertion even a smaller amount of wages than they had received before the high price of provisions had driven them to severer labour. An instance of the manner and degree in which this effect has been produced, was given in evidence by a landowner (Mr. Milne) before a Committee of the House of Lords, on the Corn Laws, which sat in 1814:—"I wished to enclose a farm at the latter end of the year 1812, or the beginning of 1813.* I sent for my bailiff, and told him that I had enclosed, about twenty-five years ago, a good deal of land; that the enclosure at that time cost me 3*s.* per ell of 37 inches; that a neighbour of mine, two or three years ago, had made similar enclosures, which cost him 5*s.* per ell; that I thought he had paid too much, and that I ought to do it cheaper. The answer I got from my bailiff was,—that provisions were very high, that the labourers were doing double work, and that of course there was less demand for labour; and that he could do these enclosures last year at a cheaper rate than I had ever done them; and he actually executed this enclosure at about 2*s.* 6*d.* per ell. He again came to me, and told me that I had proposed to him to do some ditching and draining upon another farm which I did not intend to do till about a twelvemonth after, from the circumstance of not being fully in possession of the whole farm. He requested that I would allow him to do it that season, as he could do it so much cheaper, and that a great

* Average prices of wheat, 1812 122*s.* 8*d.*
„ „ 1813 106*s.* 6*d.*

many labourers were idle from having little work, in consequence of those employed doing double work. I desired him to go on with that labour likewise, and he actually contracted, for very large ditches, at 6*d.* an ell, which I do not think I could do now under from 1*s.* to 1*s.* 6*d.*, in consequence of the fall in provisions."

If the cost of living to a labourer's family were permanently increased, there can be no doubt that wages must rise proportionally; but as, comparing one with another, in the different years that make up the sum of a labouring man's existence, there can be no permanence or steadiness in the prices of articles dependent for their abundance or scarcity upon the seasons, it must often happen under our present system that the bulk of the people will be exposed to violent alternations of plenty and misery, the remedy for which must be of a purely moral nature, and cannot be conveniently discussed on this occasion.

The most extensive register which, in point of time, we have of the rates of wages, is found in returns made to Parliament by Greenwich Hospital. Unfortunately, however, the descriptions of artisans employed in that establishment are few, and their occupations come altogether under the description of skilled labour. Besides this, the returns made up to 1805 are given only at intervals of five years; while the rates published are those paid to masters who contract for the performance of the work, and are not the sums received by the workmen.

No one, unless he shall have made the attempt to obtain information of this kind, can be aware of the difficulty opposed to his success. After many and long-continued efforts to that end, it is not possible here to bring forward many authentic or continuous statements of the rates of wages in this country. The following tables (pp. 443-51), comprise, indeed, nearly all that can be offered on the subject with confidence to the reader. Some details of the rate of wages paid to agricultural labourers might have been added, but owing to the vicious system which prevailed until lately through almost every part of the kingdom of paying a part of the wages of such labourers out of parochial rates, the addition would not have given any greater value to the statement. The last column of the table pp. 443-45 contains the annual average price of wheat in each of the years. If the variations in the weekly earnings of artisans are examined in connexion with the variations in the price of this first necessary of life, it will at once be seen what violent alternations of misery and comparative plenty must have been experienced by the working classes in this country, and an additional argument will be thence afforded in justification of the repeal of the law which, by virtually excluding grain of foreign growth, was made to aggravate such alternations.

The influence which these alternations have upon the moral character of the working classes is greater than would be conceived by any persons who have not had opportunities for observation or inquiry upon the subject.

Weekly Wages of Artisans, &c., in various parts of the Kingdom, at different periods within the present Century.

Years.	CARPENTERS.					BRICKLAYERS.			MASONS.					PLUMBERS.	
	Greenwich Hospital.	Manchester.	Londonderry.	Glasgow.	Arbroath.	Greenwich Hospital.	Manchester.	Glasgow.	Greenwich Hospital.	Manchester.	Londonderry.	Glasgow.	Arbroath.	Greenwich Hospital.	Glasgow.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1800	18 0	..	..	..	..	18 0	..	..	17 0	..	..	..	..	19 6	..
1805	27 0	..	..	..	..	29 0	..	..	30 0	..	..	..	..	27 0	..
1806	27 0	..	..	..	..	29 0	..	..	30 0	..	..	..	..	27 0	..
1807	30 0	..	..	..	..	28 0	..	..	30 0	..	..	..	..	27 0	..
1808	30 0	..	..	..	..	30 0	..	..	30 0	..	..	..	..	27 0	..
1809	32 0	..	..	..	..	30 6	..	..	30 6	..	..	..	..	31 6	..
1810	34 0	25 0	..	18 0	..	31 0	22 6	17 0	31 6	22 0	..	17 0	..	34 6	22 6
1811	33 0	25 0	..	18 0	..	32 6	22 6	17 0	34 6	22 0	..	17 0	..	34 6	22 6
1812	33 0	25 0	..	18 0	..	32 6	22 6	17 0	34 6	22 0	..	18 0	12 8½	34 6	22 6
1813	33 0	25 0	..	18 0	..	32 6	22 6	17 0	34 6	22 0	..	18 0	12 7½	34 6	22 6
1814	33 0	25 0	..	18 0	..	32 6	22 6	17 0	34 6	22 0	..	18 0	11 6½	34 6	22 6
1815	33 0	25 0	..	18 0	..	30 6	22 6	17 0	34 6	22 0	..	18 0	10 0½	34 6	22 6
1816	31 0	25 0	..	18 0	..	30 6	22 6	17 0	31 6	22 0	..	18 0	9 3	32 6	22 6
1817	31 0	25 0	..	18 0	..	30 6	22 6	17 0	31 6	22 0	..	20 0	9 0	34 6	22 6
1818	31 0	25 0	..	18 0	14 0	30 6	22 6	17 0	31 6	22 0	..	19 0	11 4	34 6	22 6
1819	31 6	25 0	..	14 0	14 0	30 6	22 6	16 0	31 6	22 0	..	15 0	9 0	34 6	22 6
1820	31 6	25 0	..	..	14 0	30 6	22 6	..	31 6	22 0	..	..	9 3	34 6	..
1821	31 6	25 0	20 0	..	14 0	30 6	22 6	..	31 6	24 0	20 0	..	10 0	34 6	..
1822	31 6	26 0	20 0	..	14 0	30 0	25 0	..	30 0	26 0	20 0	..	9 10	33 0	..
1823	30 0	22 0	19 0	..	14 0	29 0	21 0	..	30 0	22 0	19 0	..	12 7	33 0	..
1824	30 0	22 0	19 0	..	14 0	29 0	21 0	..	30 0	22 0	19 0	..	14 0	33 0	..
1825	30 0	24 0	19 0	..	17 0	29 0	24 0	..	30 0	24 0	19 0	..	14 1½	33 0	..
1826	34 6	..	18 0	..	15 0	29 0	..	..	33 0	..	18 0	..	10 3½	34 6	..
1827	34 6	..	18 0	..	12 0	29 0	..	..	33 0	..	18 0	..	10 3½	34 6	..
1828	34 0	..	17 0	..	12 0	28 6	..	..	32 6	..	17 0	..	10 3½	34 0	..
1829	34 0	..	17 0	..	12 0	28 6	..	..	32 6	..	17 0	..	10 3½	32 6	..
1830	33 0	..	17 0	..	12 0	28 6	..	..	32 0	..	17 0	..	10 3½	33 0	..
1831	32 6	..	16 0	14 0	12 0	28 6	..	15 0	31 6	..	16 0	14 0	10 3½	33 0	21 6
1832	32 6	24 0	16 0	..	12 0	28 6	17 0	..	31 6	18 0	16 0	..	10 3½	33 0	..
1833	32 6	..	16 0	..	12 0	28 6	..	..	31 6	..	16 0	..	10 3½	32 6	..
1834	32 6	..	16 0	..	..	28 6	..	..	31 6	..	16 6	..	..	32 6	..
1835	29 3	..	16 0	..	..	26 5	..	..	29 1½	..	18 0	..	..	29 11	..
1836	29 3	..	16 0	..	..	26 9	..	..	29 1½	..	18 0	..	..	29 11	..

Weekly Wages of Artisans, &c., in various parts of the Kingdom, &c.—continued.

Years.	TAILORS.				SHOEMAKERS.				HAND-LOOM WEAVERS.							SPINNERS.	
	Manchester.	Londonderry.	Glasgow.	Arbroath	Manchester.	Londonderry.	Glasgow.	Arbroath	Manchester.	Glasgow.	Arbroath.	Forfarshire.	Bolton.	Barrowford, Lancashire.	Oldham.	Manchester, Young Women.	Manchester, Men.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1800	..	..	..	..	..	..	..		..	13 1	..	..	25 0	..	..	..	..
1805	..	..	..	..	..	..	..		..	15 4	..	..	25 0	..	..	10 1½	..
1806	..	..	..	..	..	..	..		..	17 8	..	..	22 0	..	..	..	..
1807	..	..	..	..	..	..	..		..	15 6	..	..	18 0	..	..	..	..
1808	..	..	..	..	..	..	..		..	13 2	..	..	15 0	..	..	7 5½	..
1809	..	..	..	..	..	..	..		..	11 9	..	..	16 0	..	..	..	..
1810	18 6	..	19 0	..	16 0	..	15 0		16 3	11 6	..	14 0	19 6	..	..	..	..
1811	18 6	..	19 0	..	16 0	..	15 0		12 6	7 6	..	11 0	14 0	..	..	..	..
1812	18 6	..	19 0	15 0	16 0	..	15 0		13 0	9 9	16 0	10 0	14 0	..	..	..	..
1813	18 6	..	19 0	15 0	16 0	..	15 0		12 6	12 1½	16 0	8 0	15 0	..	..	9 6	..
1814	18 6	..	19 0	15 0	16 0	..	15 0		15 7	13 0	16 0	12 0	24 0	26 0	13 9	..	..
1815	21 6	..	19 0	15 0	16 0	..	15 0		13 2	11 6	14 0	13 0	14 0	17 1	11 9	..	..
1816	21 6	..	21 0	15 0	16 0	..	15 0		13 2	5 6	12 0	7 0	12 0	13 5	9 0	..	..
1817	21 6	..	21 0	15 0	16 0	..	15 0		9 6	5 9	12 0	6 0	9 0	12 1	6 6	..	..
1818	18 6	..	20 0	15 0	16 0	..	15 0		9 6	6 6	12 0	8 0	9 0	14 5	8 9	10 5	..
1819	18 6	..	20 0	15 0	16 0	..	15 0		9 6	5 0	12 0	7 0	9 6	12 6	10 0	..	..
1820	18 6	..	..	15 0	16 0	..	..		11 0	..	12 0	7 0	9 0	11 8	9 0	..	..
1821	18 6	20 0	..	15 0	18 0	15 0	..		11 0	..	13 6	9 0	8 6	12 7	8 6	..	..
1822	18 6	18 0	..	15 0	18 0	15 0	..		11 0	..	14 0	9 0	8 6	10 2	9 0	..	..
1823	21 0	18 0	..	15 0	16 0	14 0	..		6 6	..	13 0	9 0	8 6	9 4	9 6	9 3½	26 7
1824	21 0	18 0	..	15 0	16 0	14 0	..		6 6	..	13 0	10 6	8 6	8 6	9 6	..	24 2
1825	21 0	18 0	..	16 0	16 0	14 0	..		6 6	..	13 0	11 6	8 6	8 6	8 9	..	29 8
1826	..	18 0	..	15 0	..	14 0	..		..	..	12 0	5 0	7 0	5 3	6 6	..	..
1827	..	16 0	..	15 0	..	13 0	..		..	..	12 0	5 6	6 6	6 6	6 6	..	26 1
1828	..	16 0	..	15 0	..	13 0	..		..	..	12 0	7 6	6 0	6 6	7 0	9 1	27 4
1829	..	16 0	..	15 0	..	12 0	..		..	..	12 0	7 6	5 6	4 8	6 0	..	28 11
1830	..	16 0	..	15 0	..	12 0	..		..	..	12 6	6 0	5 6	6 0	5 0	..	28 6
1831	..	15 6	20 0	15 0	..	12 0	15 0		..	6 0	12 0	6 6	5 6	6 7	5 0	..	30 2
1832	18 0	15 6	..	15 0	15 0	12 0	..		9 0	..	12 0	6 0	5 6	5 4	4 6	..	27 0
1833	..	16 3	..	18 0	..	12 0	..		..	..	12 6	6 6	5 6	5 4	4 6	8 5½	29 10
1834	..	16 3	..	..	..	12 0	..		..	..	..	6 0	5 6	..	..	..	..
1835	..	16 0	..	..	..	12 6	..		..	..	..	..	..	..	..	..	..
1836	..	16 0	..	..	..	12 6	..		..	..	..	..	..	..	..	..	..

From 10s. to 12s. throughout the period from 1812 to 1833.

Weekly Wages of Artisans, &c., in various parts of the Kingdom, &c.—continued.

Years.	WOOL-COMBERS.		STOCKING MAKERS.	SEAMEN'S WAGES.			LABOURERS.					COMPOSITORS (LONDON).			PRINTERS.	Average Price of Wheat in England.
	Bradford.	Leicester.	Leicester.	American Trade, per Month	Baltic Trade, per Month	Coal Trade to London per voyage	Glasgow.	Manchester.	Londonderry.	Bradford.	Bedfont, Middlesex	Book-work.	Morning Papers.	Evening Papers.	Londonderry.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1801	..	..	..	..	..	..	..	..	..	..	..	33 0	40 0	37 0	..	110 5
1805	..	..	..	..	..	..	..	..	..	..	..	33 0	40 0	37 0	..	87 1
1806	..	..	..	..	..	..	..	..	..	..	..	33 0	40 0	37 0	..	76 9
1807	..	..	..	..	..	..	..	..	..	..	..	33 0	40 0	37 0	..	73 1
1808	..	..	..	..	..	..	..	..	..	..	..	33 0	40 0	37 0	..	78 11
1809	..	..	..	..	..	..	..	..	..	..	..	33 0	42 0	38 6	..	94 5
1810	..	..	..	..	..	..	11 0	15 0	..	..	..	33 0	48 0	43 6	..	103 3
1811	..	..	..	..	..	..	11 0	15 0	..	..	18 0	36 0	48 0	43 6	..	92 5
1812	..	..	..	..	..	..	11 0	15 0	..	..	18 0	36 0	48 0	43 6	..	122 8
1813	..	..	..	..	..	..	11 0	15 0	..	..	18 0	36 0	48 0	43 6	..	106 6
1814	..	..	..	..	..	..	11 0	15 0	..	..	15 0	36 0	48 0	43 6	..	72 1
1815	..	..	..	..	..	..	11 0	15 0	..	..	15 0	36 0	48 0	43 6	..	63 8
1816	..	..	..	..	..	..	11 0	15 0	..	..	15 0	36 0	48 0	43 6	..	76 2
1817	..	..	..	55 0	60 0	65 0	11 0	15 0	..	..	15 0	36 0	48 0	43 6	..	94 0
1818	..	20 0	..	55 0	55 0	63 0	9 0	15 0	..	..	15 0	36 0	48 0	43 6	..	83 8
1819	..	18 0	12 9	55 0	55 0	66 0	7 6	15 0	..	..	12 0	36 0	48 0	43 6	..	72 3
1820	..	18 0	12 9	50 0	55 0	65 0	..	13 6	..	..	12 0	36 0	48 0	43 6	..	65 10
1821	..	18 0	21 6½	50 0	55 0	64 0	..	15 0	10 0	..	10 6	36 0	48 0	43 6	..	54 5
1822	..	18 0	10 6	50 0	52 6	63 9	..	15 0	10 0	..	10 0	36 0	48 0	43 6	..	43 3
1823	17 5	18 0	9 5½	55 0	55 0	70 0	..	13 0	10 0	..	12 0	36 0	48 0	43 6	21 0	51 9
1824	17 5	18 0	8 9½	60 0	60 0	71 8	..	13 0	9 0	16 0	12 0	36 0	48 0	43 6	21 0	62 0
1825	17 5	21 0	11 6½	..	..	89 2	..	14 0	9 0	..	12 0	36 0	48 0	43 6	21 0	66 6
1826	15 8½	16 0	8 9½	60 0	65 0	90 0	..	..	9 0	15 0	12 0	36 0	48 0	43 6	21 0	56 11
1827	15 8½	16 6	8 3	55 0	60 0	82 6	..	..	9 0	16 0	12 0	36 0	48 0	43 6	21 0	56 9
1828	14 2	18 0	8 3	55 0	57 6	70 0	..	..	9 0	15 0	12 0	36 0	48 0	43 6	21 0	60 5
1829	12 0½	16 0	8 3	55 0	60 0	70 0	..	..	8 0	15 0	12 0	36 0	48 0	43 6	21 0	66 3
1830	12 0½	14 0	7 8½	50 0	55 0	70 0	..	..	8 0	15 0	12 0	36 0	48 0	43 6	21 0	64 3
1831	12 0½	14 0	7 8½	55 0	60 0	70 0	9 0	..	8 0	15 0	..	36 0	48 0	43 6	21 0	66 4
1832	12 0½	14 3	7 8½	60 0	60 0	65 0	..	..	8 0	15 0	..	36 0	48 0	43 6	21 0	58 8
1833	16 2	16 0	8 3	60 0	60 0	70 0	..	..	8 0	15 0	..	36 0	48 0	43 6	21 0	52 11
1834	..	..	..	..	..	..	..	..	8 0	15 0	..	36 0	48 0	43 6	21 0	46 2
1835	..	..	..	..	..	..	..	..	8 0	..	..	36 0	48 0	43 6	21 0	39 4
1836	..	..	..	..	..	..	..	..	7 6	..	..	36 0	48 0	43 6	21 0	48 6

Net Weekly Earnings of Factory Hands at Manchester in full Employment, and also during the period of Depression, in each of the Years 1844 *to* 1849.

	1844	1845	1846	1847	1848	1849
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
Card-room, males	13 6½	13 8	11 4	7 9	12 0	12 0
„ females	8 9½	8 10	6 6	3 4	8 9	8 6
Spinners and piecers	10 0½	12 0	10 10	6 10	11 7	12 0
Power-loom weavers,* male and female	10 1	9 9	8 10	4 10	9 0	9 5
Power-loom helpers	4 7	4 6	4 3	2 0	4 8	4 8
Mechanics	22 4	20 6	20 8	18 1	19 6	19 3

Note.—This is a good mill on coarse work, and one which may be considered a fair average of wages.

Weekly Wages paid in the Years 1844 *and* 1849.

	1844	1849
	s. *d.*	*s.* *d.*
Card-room, males	15 0	12 0
„ females	7 6	7 6
Self-acting spinners	14 0	15 6
„ piecers	7 0	7 9
Throstle spinners, females	8 0	7 6
Mechanics	28 0	28 0

Average Weekly Wages for each Individual, in a Mill producing Fine Yarns in Manchester, in each Year from 1844 *to* 1849.

Year.	Per Head.
	s. *d.*
1844	10 4¼
1845	10 10¼
1846	10 3
1847	10 9¾
1848	10 3¼
1849	9 10½

Average Weekly Earnings of 230 *Hands employed in one Mill in Cotton Spinning in Manchester, for the Years* 1846 *to* 1849, *inclusive.*

	s. *d.*	
1846. The earnings averaged	10 0	Per head of all ages and both sexes, of 8 years of age and upwards, working 12 hours a-day.
1847. „ „	8 4½†	
1848. „ „	8 2 †	
1849. „ „ (Upon the half-year.)	9 4	Ditto ditto, only 11 hours a-day.

* Working two looms only.

† During these years trade was bad, and the working of the mill averaged about 4 days a-week.

An Iron Work in Staffordshire, Average Weekly Earnings from 1845 *to* 1849.

WORKMEN.	1846		1847		1848		1849	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
Colliers	19	10	20	0	19	5	16	3
Miners	19	1	19	0	16	0	13	11
Patchmen and labourers	13	3	11	8	10	10	10	6
Masons, smiths, and carpenters	14	9	15	4	13	3	12	7
Fillers, furnacers	30	0	35	0	22	9	25	11
Cinder-fillers	22	0	29	2	23	4	20	3
Founders	30	0	35	0	29	9	23	11
Refiners	35	0	48	6	39	0	38	0
Puddlers—master	30	0	31	0	25	0	23	0
„ second hand	18	0	18	6	15	0	13	0
Ballers	38	0	42	0	34	0	29	0
Rollers	62	0	72	0	49	0	36	0
Rail-straighteners	43	0	46	0	28	0	22	0
Day-work at rails	16	0	17	7	17	0	15	6

Statement of the Earnings of the Workmen at Iron Works in South Wales, during each Year fi 1840 *to* 1845.

WORKMEN.	1840		1841		1842		1843		1844		1845	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*	*s.*	*d.*
Colliers . . per week	21	0	20	0	19	0	18	0	18	0	19	0
Miners. . . „	19	6	17	0	16	0	15	6	15	6	17	0
Patchmen . . „	18	0	16	0	15	0	14	0	14	0	15	0
Labourers. . „	15	6	14	0	12	0	11	0	11	0	12	0
Fillers, furnacers „	36	0	23	6	17	0	19	0	22	0	27	0
Cinder-fillers . „	29	0	20	0	14	0	16	0	18	0	18	0
Founders . . „	36	0	23	6	17	0	19	0	22	0	28	0
Refiners . . „	46	0	36	0	32	0	30	0	31	0	40	0
Puddlers . . „	34	0	30	0	28	0	23	0	24	0	25	0
Ballers . . „	32	0	22	6	18	0	22	6	24	0	30	0
Rollers . . „	69	0	44	0	47	6	34	0	38	0	45	0
Rail-straighteners „	30	0	30	0	30	0	25	0	25	0	30	0
Day-work at rails „	20	0	20	6	18	0	15	0	19	0	21	0

Statement of Workmen's Earnings at Iron Works in North Wales, in the Years from 1844 *to* 18 *both inclusive.*

WORKMEN.	1844			1845			1846			1847			1848			184	
	£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*	*d.*	£.	*s.*
Colliers,* per stent, or under eight hours' work . .	0	1	6	0	2	0	0	2	6	0	2	6	0	2	0	0	1
Labourers . . per week	0	8	6	0	9	6	0	12	0	0	12	0	0	11	0	0	10
Furnace-fillers . „	0	14	6	0	15	6	0	19	0	0	18	6	0	18	6	0	17
Cinder-fillers . „	0	14	6	0	15	6	0	19	0	0	18	6	0	18	6	0	17
Furnace-keepers „	0	19	6	1	3	0	1	8	0	1	7	0	1	3	0	1	2
Refiners . . . „	0	16	0	1	5	6	1	12	0	1	10	0	1	4	0	1	1
Puddlers . . . „	1	2	0	1	12	0	1	12	0	1	12	0	1	6	0	1	4
Heaters or ballers „	0	17	0	1	2	0	1	7	0	1	9	0	1	2	6	1	1
Rollers . . . „	1	10	0	2	7	0	3	16	0	3	17	0	2	6	0	2	4
Rail-straighteners „	1	10	0	1	4	0	1	10	0	1	10	0	1	4	0	0	16

Note.—The advance or reduction in wages during the above periods does not exactly ag with the ratio of wages earned by the workmen in the periods above stated, such alterati not being made at the commencement of the respective years, besides the wages of the r being affected independently of the rise or fall in wages by their respective departme being carried on briskly or otherwise.

The above gives their average actual earnings for the years specified, as nearly as t can be rendered.

* Miners' earnings are from 1½*d.* to 2*d.* per stent below the colliers.

Comparative Table of Wages paid to different Classes of Workmen, at Iron Works in Staffordshire, in the Years 1844 to 1849, inclusive.

CLASSES OF WORKMEN.	JUNE. 1844 — Rates per Ton.	1844 — Nominal Daily Wage.	1844 — Probable Earnings in a term of 12 Hours.	1845 — Rates per Ton.	1845 — Nominal Daily Wage.	1845 — Probable Earnings in a term of 12 Hours.
	s. d.	*s. d.* *s. d.*	*s. d.* *s. d.*	*s. d.*	*s. d.* *s. d.*	*s. d.* *s. d.*
Colliers, thick coal	..	.. 3 6	.. 4 6	..	4 0 ..	.. 5 6
„ thin coal	..	.. 2 6	.. 3 8	..	3 0 ..	.. 4 0
Miners	..	.. 2 6	.. 3 3	..	3 0 ..	.. 4 0
„ boys	..	.. ..	1 0 to 2 0	..	.. ..	1 0 to 2 6
Blast-furnace-men:—						
Keepers	0 9	.. ..	.. ..	..	.. ..	.. ..
Fillers	0 9	.. ..	.. 5 0	0 11	.. ..	.. 6 6
Bridge-stockers, &c.	0 6½	.. ..	3 6 to 3 0	0 8	..	4 6 to 3 6
Forge and mill men:—						
Puddlers, 1st hands	8 0	.. ..	.. 6 0	9 6	.. ..	.. ..
„ 2nd hands	..	.. ..	2 6 to 4 0	..	.. ..	.. ..
Rollers, 1st hands, „ assistants, Heaters, „ assistants	15 per cent. off prices.	.. ..	.. ..	No discount from prices.	.. ..	.. ..
General classes:—						
Engine-keepers	..	3 0 to 3 6	.. ..	..	..	.. 4 0
Blacksmiths	..	3 0 „ 4 0	.. ..	..	..	.. 4 6
Carpenters	..	2 8 „ 3 6	.. ..	..	..	.. 3 6
Labourers	..	2 0 „ 2 2	.. ..	..	..	.. 2 4

	1846			1847		
	s. d.	*s. d.*	*s. d.* *s. d.*	*s. d.*	*s. d.* *s. d.*	*s. d.* *s. d.*
Colliers, thick coal	..	5 0	6 0 to 7 0	..	.. 5 0	6 0 to 7 0
„ thin coal	..	3 6	4 0 „ 5 0	..	.. 3 6	.. 5 0
Miners	..	3 6	4 0 „ 5 0	..	.. 3 6	.. 5 0
„ boys	..	..	1 0 „ 3 0	..	.. ..	1 6 to 3 0
Blast-furnace-men:—						
Keepers	..	..	.. ..	..	.. ..	.. ..
Fillers	0 11½	..	.. 7 0	1 0½	.. ..	.. 7 6
Bridge-stockers, &c.	0 8½	..	5 0 to 4 0	0 9	.. ..	5 0 to 4 0
Forge and mill men:—						
Puddlers, 1st hands	10 0	..	.. 8 0	10 0	.. ..	.. 8 0
„ 2nd hands	..	..	.. ..	..	.. ..	3 0 to 5 0
Rollers, 1st hands, „ assistants, Heaters, „ assistants	5 per cent. added.	..	.. ..	5 per cent. added.	.. ..	8 0 „ 15 0 4 0 „ 5 0 8 0 „ 10 0 4 0 „ 5 0
General classes:—						
Engine-keepers	..	..	.. ..	..	3 0 to 4 4	.. ..
Blacksmiths	..	..	.. ..	..	3 0 „ 5 0	.. ..
Carpenters	..	..	.. ..	..	3 0 „ 4 0	.. ..
Labourers	..	..	.. ..	..	2 2 „ 2 6	.. ..

Comparative Table of Wages paid to different Classes of Workmen at Iron Works in Staffordshire, 1844–49, &c.—continued.

CLASSES OF WORKMEN.	JUNE. 1848			1849		
	Rates per Ton.	Nominal Daily Wage.	Probable Earnings in a Term of 12 Hours.	Rates per Ton.	Nominal Daily Wage.	Probable Earnings in a Term of 12 Hours.
	s. d.	s. d.	s. d. s. d.	s. d.	s. d.	s. d. s. d.
Colliers, thick coal	..	4 0	.. 5 0	..	3 6	.. 4 6
„ thin coal	..	2 9	3 0 to 3 6	..	2 6	3 0 to 3 3
Miners	..	2 9	.. 3 6	..	2 6	.. 3 3
„ boys	..	..	1 0 to 2 0	..	..	1 0 to 2 0
Blast-furnace men:—						
Keepers	..	..	.. ..	..	..	..
Fillers	0 7½	..	.. 4 6	0 6½	..	.. 4 0
Bridge-stockers, &c.	0 7	..	3 10 to 3 0	0 6	..	3 4 & 2 6
Forge and mill men:—						
Puddlers, 1st hands	8 6	..	.. 7 0	7 6	..	.. 5 6
„ 2nd hands	..	..	2 6 to 4 0	..	..	2 4 to 3 8
Rollers, 1st hands	10 per cent. off prices.	..	6 0 „ 12 0	15 per cent. off prices.	..	5 0 „ 10 0
„ assistants			3 4 „ 4 0			3 0 „ 3 6
Heaters			6 0 „ 8 0			5 0 „ 7 0
„ assistants			3 4 „ 4 0			3 0 „ 3 8
General classes:—						
Engine-keepers	..	..	3 0 „ 4 0	..	..	3 0 „ 3 10
Blacksmiths	..	..	3 0 „ 4 6	..	..	3 0 „ 4 0
Carpenters	..	..	.. 3 6	..	..	.. 3 4
Labourers	..	..	.. 2 2	..	..	.. 2 2

Note.—The reason why the nominal wages differ from the earnings in 12-hour shifts is, that the day's wage is fixed upon a certain quantity of cutting, of which a man can do easily a day and a quarter or a day and a half in 12 hours. Then, those who work not by measurement, but by 12-hour shifts, are paid higher wages than the nominal rates.

Average List of Prices paid to Workmen employed at the Iron Works in South Wales, from January 1844 to May 1849, per Ton of 20 cwt. of 112 lbs.

	s. d.		s. d.
Colliers, getting large coal, per ton.	1 6¼	Cinder-fillers, per ton of iron made at burnt furnaces	0 2 6/10
„ „ mixed „ „	0 9	Refiners, per ton	0 10 7/10
„ „ slack „ „	0 5¾	Puddlers „	5 4
Miners, getting ironstone	4 0	Ballers „	1 6
Founders, per ton of iron made at burnt furnaces	0 3 6/10	Rollers „	0 7 3/10
Fillers, per ton of iron made at burnt furnaces	0 3 1/10	Rail-straighteners, per ton	1 2½
		Labourers, per turn	11 8¾

Note.—In estimating the colliers' and miners' earnings, the use of powder and candles has been deducted; from the former, 2*s.*, from the latter, 2*s.* 6*d.* per week.

Average Weekly Earnings of Workmen employed at the Iron Works in South Wales, from 1st January 1844 to 19th May 1849.

WORKMEN.	1844	1845	1846	1847	1848	1849
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Colliers	13 0	16 2	20 4	20 2	16 1	14 3
Miners	10 7	12 4	15 7	15 9	12 1	10 9
Labourers	11 0	11 0	12 8	13 9	11 10	11 0
Founders	28 9	26 11	33 8	33 5	35 0	30 4
Fillers	22 0	25 10	29 10	31 3	32 7	30 4
Cinder-fillers	21 0	19 0	21 8	23 6	22 11	21 1
Refiners	37 8	39 3	51 2	40 7	48 9	39 6
Puddlers	22 7	30 6	35 8	32 4	30 11	25 7
Ballers	22 2	32 7	45 1	38 8	31 7	23 0
Rollers	33 7	58 10	72 0	80 0	60 9	35 6
Rail-straighteners	20 2	35 5	49 7	47. 8	36 8	18 2

Wages of different Classes of Workmen at Iron Works in Staffordshire, in August 1843 and in January 1844.

CLASSES OF WORKMEN.	August 1843.			January 1844.		
	Rates per Ton.	Nominal Daily Wage.	Probable Earnings in a Term of 12 Hours.	Rates per Ton.	Nominal Daily Wage.	Probable Earnings in a Term of 12 Hours.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Colliers, thick coal	..	..	3 0	..	3 0	.. 4 0
„ thin coal	..	..	2 0	..	2 3	.. 3 0
Miners	..	..	2 0	..	2 3	.. 3 0
„ boys	..	..	..	1 0 to 2 0	..	1 0 to 2 0
Blast-furnace men						
Keepers	0 8	..	..	3 6 „ 4 0	0 8	.. 3 6 „ 4 6
Fillers	0 6	..	..	2 6 „ 3 4	0 6	.. 2 6 „ 3 6
Bridge-stockers, &c.	..				..	
Forge and mill men						
Puddlers, 1st hands	7 0	..	..	.. 5 0	7 6	.. .. 5 6
„ 2nd hands						
Rollers, 1st hands	30 per cent. off prices.	..	..	.. ..	25 per cent. off prices.	.. .. ..
„ assistants						
Heaters						
„ assistants						
General classes:—						
Engine-keepers	..	2 8 to 3 2	2 8 to 3 2	..	..	2 10 to 3 4
Blacksmiths	..	3 0 „ 4 0	3 0 „ 4 0	..	..	3 0 „ 4 0
Carpenters	..	2 6 „ 3 4	2 6 „ 3 4	..	..	2 6 „ 3 6
Labourers	..	1 10 „ 2 0	.. 1 10	..	..	.. 2 0

Note.—The way to ascertain the weekly earnings of the men is to multiply the daily earnings in a turn of 12 hours by five, because almost all classes of the men work only five days a-week in "good times." In "bad times" there is generally not so much as that to give them to do.

The only exceptions to this rule are—

1st. The furnace-men (blast-furnace men) who work every day regularly, and therefore these must be multiplied by six for the week's earnings.

2nd. The engine-men, blacksmiths, carpenters, and labourers, who generally have six days a-week.

Table of Wages paid to different Classes of Workmen at an Iron Work in Staffordshire, in the Month of June in each Year from 1844 *to* 1849 *(probable earnings in a period of* 12 *hours).*

Classes of Workmen.	1844	1845	1846	1847	1848	1849
	s. d. s. d.	*s. d. s. d.*	*s. d. s. d.*	*s. d. s. d.*	*s. d. s. d.*	*s. d. s. d.*
Colliers, thick coal .	.. 4 6	.. 5 6	6 0 to 7 0	6 0 to 7 0	.. 5 0	.. 4 6
„ thin coal . .	.. 3 8	.. 4 0	4 0 „ 5 0	.. 5 0	3 0 to 3 6	3 0 to 3 3
Miners	.. 3 3	.. 4 0	4 0 „ 5 0	.. 5 0	.. 3 6	.. 3 3
„ boys . . .	1 0 to 2 0	1 0 to 2 6	1 0 „ 3 0	1 6 to 3 0	1 0 to 2 0	1 0 to 2 0
Blast-furnace men:—						
Keepers	.. 5 0	.. 6 6	.. 7 0	.. 7 6	.. 4 6	.. 4 0
Fillers	.. 3 6	.. 4 6	.. 5 0	.. 5 0	.. 3 10	.. 3 4
Bridge-stockers, &c.	.. 3 0	.. 3 6	.. 4 0	.. 4 0	.. 3 0	.. 2 6
Forge and mill men:—						
Puddlers, 1st hands.	.. 6 0	.. ..	.. 8 0	.. 8 0	.. 7 0	.. 5 6
„ 2nd hands	2 6 to 4 0	.. ..	.. ..	3 0 to 5 0	2 6 to 4 0	2 4 to 3 8
Rollers, 1st hands .	.. ..	.. ..	.. ..	8 0 „ 15 0	6 0 „ 12 0	5 0 „ 10 0
„ assistants .	.. ..	.. ..	.. ..	4 0 „ 5 0	3 4 „ 4 0	3 0 „ 3 6
Heaters	.. ..	.. ..	.. ..	8 0 „ 10 0	6 0 „ 8 0	5 0 „ 7 0
„ assistants .	.. ..	.. ..	.. ..	4 0 „ 5 0	3 4 „ 4 0	3 0 „ 3 8
General classes:—						
Engine-keepers . .	.. ..	.. 4 0	.. ..	.. ..	3 0 „ 4 0	3 0 „ 3 10
Blacksmiths . . .	.. ..	.. 4 6	.. ..	.. ..	3 0 „ 4 6	3 0 „ 4 0
Carpenters . . .	.. ..	.. 3 6	.. ..	.. ..	.. 3 6	.. 3 4
Labourers . . .	.. ..	.. 2 4	.. ..	.. ..	.. 2 2	.. 2 2

The following facts, which are given upon the authority of the gentleman who has had the chief practical direction of an extensive work, will serve to confirm the position here advanced, and will show how paramount a duty it is for those whose acts and deliberations must tend to the continuance or removal of so unfavourable a state of things, to give their earnest and most careful thoughts for the introduction of a more certain and stable system.

The formation of a canal in the north of Ireland, for some time afforded steady employment to a portion of the peasantry, who before that time were suffering all the evils, so common in that country, which result from the precariousness of employment. Such work as they could previously get, came at uncertain intervals, and was sought by so many competitors, that the remuneration was of the scantiest amount. In this condition of things, the men were improvident to recklessness; their wages, insufficient for the comfortable sustenance of their families, were wasted in procuring for themselves a temporary forgetfulness of their misery at the whiskey-shop, and the men appeared to be sunk into a state of hopeless degradation. From the moment, however, that work was offered to them which was constant in its nature and certain in its duration, and on which their weekly earnings would be sufficient to provide for their comfortable support, men who had been idle and dissolute were converted into sober, hard-working labourers, and proved themselves kind and careful husbands and fathers; and it is stated as a fact, that notwithstanding the distribution of several hundred pounds weekly in wages, the whole of which must be considered as so much additional money placed in their

hands, the consumption of whiskey was absolutely and permanently diminished in the district. During the comparatively short period in which the construction of this canal was in progress, some of the most careful labourers, men who most probably before then never knew what it was to possess five shillings at any one time, saved sufficient money to enable them to emigrate to Canada, where they are now labouring in independence for the improvement of their own land.

It will be apparent, from the examination of the foregoing tables, that although at certain seasons all those who live by daily wages must have suffered privation, yet with some exceptions their condition has, in the course of years, been much ameliorated. The exceptions here alluded to are hand-loom weavers, and others following analogous employments, conducted in the dwellings of the workmen. The diminution in the weekly earnings of other parties has been but small in any case, and certainly not commensurate with the diminished cost of most of the necessaries of life, comprehending in this list most articles of food, and every article of clothing. By this means they have acquired, with their somewhat diminished wages, a much greater command than formerly over some of the comforts of life.

It is true that the necessity under which most labouring men are placed of purchasing in very small quantities from retail dealers who are themselves, perhaps, unable to purchase in the best markets, prevents their deriving in every case the full advantage of diminished prices: but it must be plain to everybody that at least in one respect the condition of the labouring poor is greatly mended. The reduction in the prices of all kinds of manufactured goods, accompanied as it is by improvement in their quality, has been such that few indeed are now so low in the scale of society as to be unable to provide themselves with decent and appropriate clothing. It cannot be necessary to adduce any evidence in support of this fact, which is obvious to every one who passes through the streets; so great, indeed, is the change in this respect, that it is but rarely we meet with any one that is not in at least decent apparel, except it be a mendicant, whose garb is assumed as an auxiliary to his profession. Those who through improvidence or misfortune are unprovided with clothes of a good quality, which the improving customs of the people have made necessary, render homage to the feeling whereby that improvement has been brought about, and for the most part remain within their homes. The silk-weavers of London who are located in Spitalfields and Bethnal Green and their vicinity, are, too many of them, a very improvident class of people, so that many are unprovided with any other clothing than their working dresses. It has been attributed to this circumstance that those among them who reside in the town provide themselves with amusement by keeping pigeons, great numbers of which are always to be seen in Spitalfields, while those who

live in the suburbs employ much of their leisure time in the cultivation of flowers. Before the repeal of the heavy duties which were long imposed upon raw and thrown silk, and when, consequently, silk fabrics were too costly to be within the reach of any but the easy classes, the hands engaged in their production were liable to be affected by every change of fashion. Periods occurred during which for many months together the silk weavers of Spitalfields were without employment, and their condition was deplorable in the extreme. It has followed from this, that many benevolent persons have at various times established charities within the district, which have had the effect of drawing to it great numbers of the labouring poor, and it has accordingly happened that whenever the weavers have experienced a want of employment, and the public sympathy has been awakened in their behalf, a considerable part of the contributions raised for their relief has been intercepted by persons following other employments, and who have found it no difficult matter to impose upon the persons to whom the distribution of relief has been intrusted. The inquiries made in April, 1837, by Dr. Kay, in the Spitalfields district, have thrown a considerable degree of light upon the subject of affording extraneous aid in periods of distress, and it may be well to state here very briefly some of the results of his investigations. A weaver who is married has generally two looms, one for himself and another for his wife; if he have children, these, as they grow up to be seven years of age and upwards, are set to assist in some of the auxiliary operations of his craft, such as winding, quilling, and picking the silk, and at the age of twelve or thirteen they are put into the loom to weave. The man himself may be employed on a jacquard loom, and will earn on an average 25*s.* per week, or on a velvet or rich plain silk, when his earnings will be from 16*s.* to 20*s.* The wife will earn from 10*s.* to 12*s.*, and the gains of the children will be proportioned to their ages. Altogether the man who is master of four looms is, in ordinary times, in the receipt of such an amount of wages as should enable him to provide against at least the ordinary casualties of life, and the fluctuations that may arise in the demand for his labour. On the occurrence of a commercial crisis,—for the silk weavers are now happily not so dependent for employment as formerly upon the fashion of the day,—the loss of work occurs first amongst the least skilful; the children, whose earnings are least, are the earliest put out of work; next the wife is without employment, and it must be an extreme case which takes away any considerable part of the man's earnings. Such extreme cases may arise, however, and it may be well to inquire in what degree the greatest probable assistance through the subscriptions of individuals is calculated to repair the evil. The chief manufacturers are of opinion, that in times of ordinary activity, from 10,000*l.* to 12,000*l.* per week are usually paid as the wages of the weaving population in the district. At

the time of Dr. Kay's inquiry it was believed that this amount was reduced to 5000*l.* or 6000*l.* per week. The depression of 1825-6 was probably greater than this, and extended over a period of six or eight months; the contributions of the public, which amounted to 30,000*l.*, would therefore not supply more than one-fifth or one-sixth of the usual resources of the population, if even its distribution had been confined, which it was not, to the weaving population. In 1829 the subscriptions amounted to about 10,000*l.*, a sum scarcely equal to the deficiency of two weeks as experienced in the beginning of 1837. This consideration serves to show how important it is that we should endeavour by every legitimate means to preserve the channels of labour free from obstructions, and in how great a degree it behoves the Government to be watchful to prevent those disturbances and alternations in the currency which, with the exception of a state of war, are the most inimical of all things to the general prosperity of the trading and working classes.

Want of providence on the part of those who live by the labour of their hands, and whose employments so often depend upon circumstances beyond their control, is a theme which is constantly brought forward by many whose lot in life has been cast beyond the reach of want. It is, indeed, greatly to be wished, for their own sakes, that the habit were general among the labouring classes of saving some part of their wages when fully employed, against less prosperous times; but it is difficult for those who are placed in circumstances of ease to estimate the amount of virtue that is implied in this self-denial. It must be a hard trial for one who has recently, perhaps, seen his family enduring want, to deny them the small amount of indulgences, which are, at the best of times, placed within their reach. The habitual exercise of forbearance of this kind is a thing which, in this country especially, we have but little right to expect from those who have been born and brought up under a law which offered a premium to improvidence; and the amount of savings deposited in provident banks by the poor under such circumstances should be looked upon as a most extraordinary evidence of their desire for independence, a desire which cannot be too anxiously fostered and encouraged by their rulers. We have seen how little comparative relief can be afforded in times of trial by even the most liberal assistance on the part of the wealthy, and, indeed, from the mode of its distribution, this help is often productive of as much evil as good, a result from which the providence of the poor is altogether free.

Those persons who have been bred in the lap of ease, and whose passage through life has been unvisited by the cares and anxieties that attend upon the children of labour, are very inadequate judges of the trials on the one hand, and of the means of surmounting them on the other, which are offered to those who must always form the most nume-

rous class in every community. Happily this subject has been cleared from the doubts by which it would otherwise be obscured, by the recorded observations and opinions of men who themselves have struggled successfully against those difficulties, and have made the most of the opportunities yielded by a life of labour. One of these prudent and successful men, of whose labours advantage has been taken in a former section of this work, Mr. William Felkin, of Nottingham, thus forcibly and feelingly gives his testimony on the subject, in some very striking remarks upon the appropriation of wages by the working classes, which he addressed to the statistical section of the British Association, at its meeting in Liverpool:—

"If any one intends to improve his condition, he must earn all he can, spend as little as he can, and make what he does spend bring him and his family all the real enjoyments he can. The first saving which a working man effects out of his earnings, is the first step, and because it is the first step, the most important step towards true independence. Now independence is as practicable in the case of an industrious and economic, though originally poor workman, as in that of the tradesman or merchant, and is as great and estimable a blessing. The same process must be attended to, *i. e.*, the entire expenditure being kept below the clear income, all contingent claims being carefully considered and provided for, and the surplus held sacred to be employed for those purposes, and those only, which duty and conscience may point out as important or desirable. This requires a course of laborious exertion and strict economy, a little foresight, and possibly some privation. But this is only what is common to the acquisition of all desirable objects. And inasmuch as I know what it is to labour with the hands long hours, and for small wages, as well as any workman to whom I address myself, and to practise self-denial withal, I am emboldened to declare from experience, that the gain of independence, or rather self-dependence, for which I plead, is worth infinitely more than all the cost of its attainment; and moreover, that to attain it, in a greater or less degree, according to circumstances, is within the power of far the greater number of skilled workmen engaged in our manufactures. Unhappily, the earnings of the industrious workpeople in some trades have been at times, and often for a long time, so scanty as to afford scarcely the means of existence. The hand-loom weavers and common stocking-makers have been very distressing cases of this kind, but they have been exceptions, and most powerfully establish the general position, for instances have not been of unfrequent occurrence in both these trades, of workmen, by dint of perseverance and economy, emerging from the mass of misery around them, and placing themselves in easy and happy circumstances."

The circumstances that gave occasion to these remarks on the part of Mr. Felkin, arose out of the commercial pressure which bore with

peculiar severity upon the manufacturing industry of Nottingham, in the early part of 1837. To relieve in some degree the sufferings of the unemployed workmen, a subscription was raised amounting to 5000*l.*, and expended in the construction of a road, from the opening of which much benefit has resulted. The account which Mr. Felkin, who acted a prominent part in the management of this fund, has given of the result, is, in many respects, highly interesting. Considerable pains were taken to ascertain the character and previous condition of every applicant for employment, and complete returns were obtained with regard to 1043 persons, having among them 779 wives and 2165 children, making together 3987 persons. Among them were 452 framework knitters, whose weekly wages, when fully employed, averaged 11*s.* 6½*d.*, and 176 of the wives are stated to have earned on the average 1*s.* 10½*d.* per week. There were 496 lace-makers, whose weekly earnings had averaged 15*s.* 1*d.*, while 182 of their wives had earned on the average 2*s.* 1½*d.* per week. The weekly gains of the remaining 93 persons employed in various ways had averaged 16*s.* 4*d.*, and 34 of their wives had earned each 1*s.* 9*d.* per week. The average weekly earnings of each family were found to be about 17*s.* 6*d.*, as given by themselves, but it is known, that at least in some cases, the full amount was not stated by them. Among all these cases investigated, "eight only had been pauperised in any form." The average period during which the 1043 families had been only partially employed, was 10 weeks and 3 days, and the average time during which they had been wholly without work, was 6 weeks and 5 days. Some had, of course, been longer unemployed than others, and it is a remarkable fact established by these inquiries, "that men with five or six children supported themselves and their families under the circumstances of short work or total deprivation of labour, as long as the unmarried, or those who had smaller families." Not one of the 1043 applicants had been a depositor in the savings' bank.

The circumstances attending the condition of the working classes in other countries differ in many respects from those which influence their condition in Great Britain. This has been shown already in a former chapter,* a reference to which will sufficiently explain the difficulty of instituting any comparisons on the subject.

In November, 1833, instructions were addressed by the Secretary of State, Lord Palmerston, to certain British Consuls residing abroad, requiring answers to certain questions having reference to the state of agriculture, and to the condition of the agricultural peasantry within the districts of their consulates. Answers received from the Consuls in various parts of France, Germany, the Netherlands, and Italy, have been presented to Parliament, and from these documents the following abstract is taken:—

* Section I., Chapter IV., Pauperism.

Country and District.	Description of Servant.	Yearly Wages.	Daily Wages.	With or Without Board.	With or Without Dwellings.
FRANCE.					
Calais . . .	Ploughmen . .	100*s.* to 160*s.*	..	With	With
	Shepherds . .	250*s.*	..	„	„
	Labourers . .	..	7½*d.*	„	Without
Boulogne . .	Ploughmen . .	144*s.*	..	„	With
	Labourers . .	..	5*d.*	Without	Without
Havre . . .	Farm Servants generally .	160*s.* to 240*s.*	..	With	With
Brest . . .	Labourers . .	48*s.* to 120*s.*	..	„	„
Nantes . . .	Ditto . . .	..	8½*d.*	Without	Without
Charente . .	Farm Servants generally .	60*s.* to 160*s.*	..	With	With
Bordeaux . .	Labourers . .	..	12*d.* to 15*d.*	Without	Without
Bayonne . .	Ditto . . .	..	9*d.* to 12*d.*	„	„
Marseilles . .	Shepherds . .	200*s.* to 240*s.*	..	With	With
	Labourers . .	..	4½*d.* to 7*d.*	„	Without
Corsica . . .	Ditto . . .	..	11*d.*	Without	„
GERMANY.					
Dantzic . .	Farm Servants .	52*s.* to 64*s.*	..	With	With
	Labourers . .	..	4½*d.* to 7*d.*	Without	„
Mecklenburg .	Farm Servants.	100*s.*	..	With	„
	Labourers . .	..	7*d.*	Without	„
Holstein . .	Farm Servants.	73*s.* 6*d.* to 100*s.*	..	With	„
	Labourers . .	..	7*d.*	Without	„
NETHERLANDS.					
South Holland	Farm Servants.	200*s.* to 250*s.*	..	With	„
	Labourers . .	..	3*d.* to 4*d.*	„	„
North Holland	Ditto . . .	..	20*d.*	Without	Without
Friesland . .	Farm Servants .	50*s.* to 166*s.* 8*d.*	..	With	With
	Labourers . .	..	6*d.* to 16*d.*	Without	Without
Antwerp . .	Farm Servants.	78*s.* 9*d.*	..	With	With
	Labourers . .	..	5*d.*	Without	Without
West Flanders	Farm Servants.	96*s.* to 104*s.*	..	With	With
ITALY.					
Trieste . . .	Labourers . .	..	12*d.*	Without	Without
	Ditto . . .	..	6*d.*	With	With
Istria . . .	Ditto . . .	..	8*d.* to 10*d.*	Without	Without
	Ditto . . .	..	4*d.* to 5*d.*	With	With
Lombardy . .	Ditto . . .	..	4*d.* to 8*d.*	„	„
Genoa . . .	Farm Servants .	60*s.* to 100*s.*	..	„	„
	Labourers . .	..	5*d.* to 8*d.*	„	Without
	Ditto . . .	..	12*d.*	Without	„
Tuscany . .	Farm Servants .	40*s.*	..	With	With
	Labourers . .	..	6*d.*	Without	Without

The usual method adopted in the Venetian States, is for the proprietor to stock the land, and to take one-half the produce for his rent, while the labourer takes a portion of the other half for his labour, and this portion varies according to the nature of the soil and the circumstances of the farm. In the province of Venice the land is so poor as to produce only six measures for one measure of wheat sown. In Friuli the produce is eight for one, and in the Polesine, twelve measures are expected from an average harvest. The returns from maize are considered to be double those obtained from wheat.

CHAPTER XV.

MEASUREMENT AND CLASSING OF SHIPPING.

Inaccurate mode of Measuring employed from 1773 to 1835—Various consequent evils—Remedy attempted, 1821—Accomplished, 1835—Imperfect Classification of Ships—Bad consequences—Remedy provided, 1834.

THE statements inserted in Chap. IX. give correctly the tonnage of mercantile vessels built in, and belonging to the United Kingdom, as the same is expressed on the registers of the ships, and recorded at the Custom-house; they likewise afford sufficiently accurate data for ascertaining the comparative amount of our mercantile marine, at different periods, throughout the years to which the statements apply; but they do not by any means supply correct information of the aggregate burthen of the ships at any one epoch. This want of accuracy is owing to the barbarous system which, up to a very recent date, was followed for the admeasurement of ships, and which enabled their builders, at the sacrifice of some essential good qualities, to procure the official measurement to be very greatly below the actual cubical capacity of the hold of the vessel, which capacity it was pretended to insert in the register. The absurdity of computing the burthen of a vessel by the admeasurement of the length and breadth, without taking any account of the depth, does not need to be enforced. Occasions have arisen, where ships had their holds deepened by building upon the sides, so as to add from one-fourth to one-third to their cubical capacity, and where, owing to some contraction of the width, at the point of measurement, the tonnage recorded in the register has been actually lessened.

The method here described was established in 1773-4, and would probably have proved in general accurate, if it had not offered an inducement—by means of duties charged on the registered tonnage—to construct ships out of proportion. If the evasion of a portion of those duties had been the only consequence of the faulty rule of admeasurement, the evil would have been trifling when compared with that which it has really occasioned. Under the rule described, the greater part of our merchant [illegible] sightly in Europe, and, what is of far more co[illegible] are very unmanageable in

bad weather and on a lee-shore; for this last reason the loss of life that has been occasioned has been exceedingly great. It has been asserted by a gentleman who took a deep interest in procuring an alteration in the law of admeasurement, as the result of his inquiries, that if it had been necessary to enforce an application to the legislature by such means, he could easily have procured numerous signatures to a petition in which every person signing it should have occupied the relation of widow or child to those whose lives had fallen a sacrifice to the unmanageable qualities of British merchant ships.

The evils here described were long felt, and the desirableness of providing a remedy acknowledged. For this purpose a committee, of which the late Dr. Thomas Young, Captain Kater, and Mr. Davies Gilbert, were members, was appointed by the Admiralty in 1821. On that occasion upwards of fifty ships, of different sizes and descriptions, were examined, and it was ascertained, that owing to their faulty proportions the weight of goods which they were capable of carrying, exceeded the measurement tonnage, on the average, in the proportion of four to three. The evils of the system were fully exposed by the inquiries of this committee; but because the members of which it consisted were unable to suggest any plan by means of which mathematical accuracy could at all times be ensured, no practical good resulted from their labours. After this the matter rested until 1834, when another committee was formed for the purpose by the Board of Admiralty. The principal members of this committee were Mr. Davies Gilbert and Captain Beaufort of the Royal Navy, the able hydrographer to the Admiralty, by whom the subject was taken up in a way at once scientific and practical; and in consequence of their report, and of the active exertions of the President of the Board of Trade, Mr. Poulett Thomson, a law was passed by which the evil has been checked, and placed in a course of gradual amendment. It will be long before this remedy shall have produced its full effect, as, of course, the ships that were in existence before the alteration of the system will be still employed; the temptation to build what are called "burthensome" vessels is however destroyed, and the advantage, as regards new ships, is all in favour of the adoption of better and safer proportions in their form.

Another circumstance, which, although it had not the force of a legal provision, exerted a bad influence in regard to the proper construction of merchant ships, has lately been remedied. For a long series of years a committee of gentlemen connected with Lloyd's Coffee House, has superintended a registry of the qualifications of ships, which, upon the reports made of them by surveyors, were placed in different classes, and according to the rank thus assigned to each, the preference was given, with regard to employment and to the rate at which the vessel, or goods shipped in her, could be insured, and of course also to

the rate of freight earned by her, which was always diminished in proportion to the increased cost of the insurance upon the goods. Until the year 1834 the advancing age of the ship was always held to be conclusive evidence as to her deterioration, so that a vessel, when arrived at a certain age, was invariably transferred to a lower class, although, from having received efficient repairs, she might be, in reality, of superior qualifications to those she held at the time of the first survey and registration. As the almost inevitable consequence of this rule, ships were built with but little regard to durability, and if, as the term of their highest rank elapsed, repairs became necessary, these were applied as sparingly as possible; and, indeed, it usually happened, from the faults of their original construction, that they were undeserving of any great expense being incurred upon them. It will be seen how greatly this system must have acted in aggravation of the mischief caused by the faulty mode of admeasurement just described. The evil at length awakened the attention of a few spirited individuals, and through their exertions the system has been thoroughly reformed. Ships are now subjected to frequent surveys, by a competent body of able and well-paid officers, and they are classed, not according to the time that has elapsed since they were launched, but according to their condition at the moment of the survey. By this means a sufficient inducement is given to build them of good materials and in a proper manner, and further to give them, as often as is needed, thorough and substantial repairs. The underwriters, who formerly could place but little confidence in the rating of a ship in the register, now have full reliance upon its correctness, and the merchants and owners share the advantage in the lower rate of premium demanded.

CHAPTER XVI.

WAREHOUSING SYSTEM.

The necessity of paying Duties on Importation unfavourable to Commerce—Productive of Fraud—Warehousing System proposed in 1733—In 1750—Introduced in 1803—Unfavourable Conditions when first established—Gradual Improvements—Disadvantages still resulting from the original Restrictions—Warehousing Ports in England—Scotland—Ireland—Prevention of Frauds against the Revenue by means of Warehousing System.

THE beginning of this century is marked by an exceedingly great improvement in our Customs regulations. Previous to 1803 it was required of the importers that they should pay the consumption duties upon almost every description of foreign and colonial goods at the time of their importation; a system which tended in various ways to limit trade, by crippling the resources of the generality of our merchants, and by giving an undue advantage over others to the few who had the command of large capitals. By this system the prices of almost all goods were increased to the consumers, who, in addition to the ordinary profits of trading, had to pay an additional profit to reimburse the merchant for the advance of the duty. Unless the disturbing influence of war should force trade into unnatural channels, it was impossible that while such a system was continued, the carrying trade of the country could experience any extension. The amount of duty that had been paid on importation was, indeed, in most cases returned, under the name of bounty or drawback, upon the goods being subsequently re-exported; but by this means a door was opened for fraud upon the revenue to a large amount, and where transactions were honestly carried on, the interest upon the amount of duties, between the time of their being paid by and returned to the merchant, was in most cases lost, because it was not possible in any way to recover it from the foreign consumer.

The proposal to warehouse some descriptions of goods without payment of duties on importation, formed part of the Excise scheme brought forward by Sir Robert Walpole, in 1733; but so great was the opposition offered to the plan by the ignorance and prejudices of party men, and probably also by traders, whose schemes for defrauding the revenue

would by its means have been frustrated, that the intention was necessarily abandoned. A similar proposal was afterwards brought forward and ably supported by Dean Tucker, in 1750, but in vain. Having now for nearly 50 years experienced, in a considerable degree, the benefits of the warehousing system, it is difficult for us to account for the blindness of those by whom it was so long successfully opposed. The advantages which we now derive from this system were not indeed experienced at its first adoption. Many of the regulations connected with it, which now impart such great facilities to commerce, have been introduced progressively, and some of them not without considerable opposition. For a long time after the passing of the first Warehousing Act (43 Geo. III., c. 132), it was held by the Government to be a boon especially granted to the mercantile class, and every application made for its improvement, or for obtaining further facilities for trade, was met and resisted in this spirit. It is only within the last few years that more enlightened views have prevailed, and that it has been seen and acknowledged that no facilities could be granted to the general body of traders that would not prove at least as advantageous to the country at large. An account is always taken on landing of the weight or measure of every package; and until within the last few years it was rigidly exacted from the merchants in every case—with the exception of one article, tobacco—that the duty should be paid not upon the quantity remaining at the time of the goods being taken for consumption, but upon the quantity ascertained at landing, although in the interim the packages had remained in the sole custody of the revenue officers, without the possibility of any fraud having been committed. Further than this, if the goods, instead of being taken for consumption, were exported from the warehouses, an account was taken of the weight or measure at the time of shipment, and the merchant, before he was allowed to remove his goods from the custody of the Crown, was compelled to pay the full consumption duty upon such part as had wasted in the warehouse. This course was justified under the plea already mentioned, that the privilege of warehousing was altogether a boon to the merchants; that without it they must have paid the duty on the full quantity imported, and would have been entitled to drawback only upon the part actually exported; and that therefore they were no losers by being made to pay the duty upon the quantity deficient. This was a specious argument, and, being held by those who had the power of enforcing their opinions, was long used successfully. A minister prepared to take a more enlarged view of the subject at length broke through the rule. He saw that, but for the privilege of warehousing without payment of duties, little, if any, of the transit trade of the country would have existence; that this trade offers a general benefit to the community, and should not be considered as profitable only to

those by whom it is carried on; that it was unjust to the owners of goods, against whom no fraud could be imputed, to visit them with penalties because of the waste which their property had undergone; and that to require the payment of consumption duty upon a greater quantity of goods than was actually consumed, was in so far to substitute penalties for taxation; a system altogether unequal, and therefore vicious. From that time to the present the Government has at all times been willing to give a favourable attention to the representations of the merchants, and so many concessions have thus been made from time to time, that our Customs' regulations, as adopted in some ports, are now acknowledged to afford almost every facility to the trader that can be made compatible with the due security of the revenue. Among the relaxations that have been thus conceded may be mentioned not only relief from the payment of duties on deficiencies ascertained upon re-exportation, but, in the case of such articles as are subject to waste, the duty is chargeable only upon the quantity ascertained to exist at the time it is taken from the warehouse. The owner may "sort, separate, and re-pack," any goods in order to their preservation, or to effect a more ready sale or shipment; wines and spirits may be bottled in the warehouse, without payment of duty, if intended for subsequent shipment; and woven fabrics imported from abroad may be taken out of warehouse without payment of duty, in order to their being cleaned, bleached, dyed, or printed, upon security being given to replace the same under the custody of the revenue officers. In fact, the principle is now felt and acknowledged, that to facilitate in every way the operations of honourable commerce must prove advantageous to the community at large.

The concessions of the Government, which permitted the bringing of certain goods into consumption upon payment being made of the duty upon such quantity as actually exists at the time of its being removed from the custody of the revenue officers, was occasioned immediately by the circumstance of a large quantity of French brandy, 9000 puncheons, having remained in the London docks so long that the strength and quantity were diminished in such a degree, that the duty payable upon the portion that had wasted would have amounted to a greater sum than the market value of the brandy remaining, exclusive of the duty. Under these circumstances, although the improvement in quality occasioned by time rendered these 9000 puncheons most desirable to the consumer, not a gallon could be brought into use, and the proprietors were compelled to bring over supplies of brandy which had not been mellowed by age, but which would be admitted to consumption upon payment of duty upon the quantity of spirit which each cask contained. The folly of keeping a large capital thus unproductively locked up, and becoming daily less valuable, grew at length so apparent to the

Government, that relief was afforded in the first instance to the owners of these specific casks of spirits; and, the door having been thus opened for the infraction of the principle, so long and so strenuously defended, it was soon after abandoned, and the rule adopted which has since been followed, and which is more in consonance with a just and liberal policy.

It is much to be regretted that the full advantages of which the warehousing system is found to be susceptible were not recognised at the time of its first adoption. The Act of 1803 specifically permitted the warehousing of the most important articles of West India produce, without payment of duty, in the West India docks; and of rice, tobacco, wine, and spirits in the London docks: besides which, the permission was given to warehouse several articles, the bulk of which is great in proportion to their value, in places to be approved by the Commissioners of the Customs, and a more numerous assortment of goods might in the same way be deposited in warehouses to be approved by the Lords of the Treasury. Although the Act was thus confined in its operation, it contained authority to the Lords of the Treasury to extend its provisions to any other ports in Great Britain, and also to the warehousing of goods other than those mentioned in its various schedules. The power thus imparted was acted upon at first with the greatest caution. The construction and situation of the warehouses then existing in the various ports of the kingdom, and which had been built without reference to the kind of security required by the Government, were such that it was not considered consistent with the interests of the revenue to grant the same privileges to them as were conceded to the more secure warehouses of the docks in London. At the same time the small amount of advantages that would then have attended the construction of warehouses of satisfactory security was not sufficient to induce the merchants to make any efforts for obtaining it; and in proportion as trade increased, and fresh warehouses were needed, these were built on the old plans, and in appropriate situations, to meet the convenience of individual merchants. Had the system been placed at once upon its present liberal footing, the course in this respect pursued at the outports would have been different; warehouses equally secure with those of our great London establishments would have been at once erected, instead of those just described, which are too costly to admit of their being abandoned: and the effect of this has been in various ways injurious to commerce. The merchants at the outports, feeling jealous of those in London, have always importuned the Government to extend to themselves the indulgences which the importers in the metropolis received, and to which they were fairly entitled by the security against abuse which they could offer. On the other hand, the Government, feeling how difficult a thing it is to convince any body of men of the reasonableness of distinctions which

operate to their disadvantage, has been more slow than it would otherwise have been to make concessions in situations where they would be unaccompanied by risk to the revenue; and in this way the progress of the warehousing system has been more slow, and up to the present moment is less favourable to commerce than it is capable of being made, or than it would have proved if a different course had been adopted from the first.

The privilege of warehousing goods without payment of duty was first extended to Ireland in 1824. The different ports in the United Kingdom to which it is now granted, with the dates of its first concession to each, are as follows:—

ENGLAND.

London, 1803 (East India goods 1799, and tobacco 1800).
Liverpool, 1805 (tobacco, 1789).

Bristol	1805	Rye	1823
Hull	1805	Bridgewater	1823
Newcastle	1805	Yarmouth	1825
Plymouth	1805	Wisbeach	1825
Portsmouth	1805	Goole	1827
Southampton	1805	Chepstow	1828
Gloucester	1805	Carlisle	1830
Boston	1805	Malden (Essex)	1830
Dover	1805	Lyme	1831
Falmouth	1805	Bridport	1832
Grimsby	1805	Berwick	1833
Newhaven	1805	Cardiff	1834
Rochester	1806	Ramsgate	1835
Lynn	1806	Penzance	1836
Whitehaven	1806	Shields	1836
Ipswich	1806	Truro	1837
Lancaster	1806	Faversham	1839
Exeter	1807	Fleetwood	1839
Sunderland	1807	Hartlepool	1839
Chester	1807	Woodbridge	1839
Colchester	1808	Arundel	1840
Weymouth	1809	Scarborough	1840
Poole	1810	Deal	1841
Dartmouth	1811	Gainsborough	1841
Stockton	1815	Carnarvon	1842
Shoreham	1819	Maryport	1842
Whitby	1820	Preston	1842
Swansea	1821	Workington	1843
Milford	1821	Manchester	1844
Bideford	1821	Newport (Monmouthshire)	1844
Chichester	1822	Fowey	1848
Barnstaple	1822	Folkestone	1849
Cowes	1823		

SCOTLAND.

Greenock	1805	Inverness	1835
Port-Glasgow	1805	Irvine	——
Leith	1806	Arbroath	1836
Dumfries	1807	Alloa	1837
Aberdeen	1812	Perth	1837
Grangemouth	1815	Peterhead	1840
Dundee	1818	Banff	1841
Glasgow	1822	Kirkaldy	1845
Montrose	1823	Ayr	1847
Borrowstoness	1824		

IRELAND.

Dublin	1824	Drogheda	1825
Belfast	1824	Galway	1825
Cork	1824	Londonderry	1825
Wexford	1824	Dundalk	1825
Coleraine	1824	Ross	1834
Sligo	1825	Westport	1836
Limerick	1825	Ballina	1845
Newry	1825	Skibbereen	1846
Waterford	1825	Tralee	1848

Among the practical advantages that have attended the adoption of the warehousing system, may be mentioned the simplification of the Custom-house accounts, and the abridgment of labour in the revenue departments. During the time when the duty was exacted on the importation of goods, and was returned upon their re-exportation, the machinery of the Custom-houses and Excise-offices throughout the kingdom was complicated, through the necessity of creating checks for the prevention of frauds on the part of the exporting merchants. At that time the largest part by far of the money received on importation was paid back on the subsequent exportation of the goods, and so systematically and extensively were frauds carried on under this system, that many large fortunes were created by that means, notwithstanding the enormous fines which at various times were imposed on their possessors when their fraudulent proceedings were brought to light. One extensive dealer in foreign spirits is known to have openly boasted to the Commissioners of Excise, on the occasion of paying to them a fine of 30,000*l.*, that he was still very largely in their debt. At that time, and before the construction of docks in the port of London, large cargoes of valuable goods—the more valuable by all the amount of duties that had been paid upon them—were deposited in private vaults and warehouses in the city, where they were exposed to pilfering and to fraudulent admixtures and substitutions, very prejudicial to the owners, and for the amount of which the large compensations paid by the dock companies are considered to have formed a very inadequate compensation to the warehouse-keepers. It is no small praise of the warehousing system to say, that it has thus removed much of the temptation to fraudulent proceedings on the part of a numerous proportion of the persons to whom trusts of this kind were necessarily confided.

SECTION IV.

PUBLIC REVENUE AND EXPENDITURE.

CHAPTER I.

FINANCIAL SITUATION OF THE KINGDOM AT THE BEGINNING OF THE PRESENT CENTURY.

Financial Condition at the close of the 18th Century—Triple Assessment—Income-tax Imposed—Repealed—Enormous Government Expenditure—Fallacious show of Prosperity—Misery of the Working Classes—Their diminished Command of the Necessaries of Life—Effect of Mechanical Inventions in supporting the Country under Difficulties.

In order to give an intelligible account of the financial state of the kingdom at the beginning of the present century, it is necessary to explain briefly the system which had been brought into operation by Mr. Pitt during the preceding three years.

In November, 1797, that minister had recourse to what he was pleased to call "a perfectly new and solid system of finance." The public expenditure of that year amounted to 25½ millions, of which sum only 6½ millions were provided for by existing unmortgaged taxes, leaving 19 millions to be raised by extraordinary means. In the then condition of the money-market it was felt to be impossible to borrow such an amount in the ordinary manner, that is, providing by new taxes for the payment of only the permanent annual burthen occasioned by the increased debt; and a new impost, calculated to produce seven millions, was sanctioned by Parliament, which impost was to be continued until it should, in conjunction with the produce of the sinking fund, repay the twelve millions that would be still deficient. This new system of finance might have been entitled to the character given of it by Mr. Pitt, if it had not been probable—nay, certain—that in the following years an equal expenditure must be met by similar means, until the seven millions would prove inadequate even for the payment of the annual interest of the sums for

which the tax was imposed, when it would become part of the permanent burthens of the country. This new impost, to which the name of "triple assessment" was given, was in fact an addition made to the assessed taxes, "in a triplicate proportion to their previous amount—limited, however, to the tenth of each person's income."

The adoption of this, or some similar plan of financial arrangement, was hardly a matter of choice with the minister, by whom the funding system, as ordinarily practised, could not have been any further pursued at that time. Unfortunately for the success of the principle which it was thus sought to establish, the mode in which it was proposed to raise the seven millions of additional revenue was highly unpopular, and indeed it has always excited dissatisfaction on the part of the public to be called on for the payment of any tax from which they have not the power to protect themselves, by abstaining from the use of the taxed commodity. It is this consideration which has always made our finance ministers prefer indirect to direct taxation, and which led, during the progress of a long and expensive war, to the imposition of duties that weighed with destructive force upon the springs of industry. The financial difficulties by which the Government was then embarrassed may be known from the fact that a loan of three millions was raised in April, 1798, at the rate of 200*l.* 3 per cent. stock, and 5*s.* long annuity for each 100*l.* borrowed, being at the rate of 6½ per cent., and that the "triple asesssment," which was calculated to produce seven millions, yielded no more than 4½ millions. In the following December the triple assessment was repealed, and in lieu of it an income-tax was imposed at the rate of 10 per cent. upon all incomes amounting to 200*l.* and upwards, with diminishing rates upon smaller incomes, down to 60*l.* per annum, below which rate the tax was not to apply. This tax was estimated to produce ten millions: it was called a war tax; but when the minister proceeded to mortgage its produce to defray the interest of loans to a large amount, such a name appeared to be little better than a delusion. Like the triple assessment, the produce of the income-tax fell greatly short of its estimated amount, and yielded no more than seven millions, a large part of which was quickly absorbed to defray the interest of loans for which it was successively pledged. In 1801, after deducting the sums thus chargeable on it, this tax produced only four millions towards the national expenditure. In proposing a loan of 25½ millions for the service of that year, it was considered inexpedient to mortgage the income-tax any further, and new taxes were imposed, estimated to yield 1,800,000*l.* per annum. In March, 1802, peace was made with France, and in the same month notice was given by the Chancellor of the Exchequer, Mr. Addington, of his intention to repeal the income-tax, which was felt to be highly oppressive, and had become more and more odious to the people. In effecting this repeal, and at the same time to

keep faith with the public creditors, to whom its produce had been mortgaged to the extent of 56½ millions of 3 per cent. stock, additional taxes were imposed upon beer, malt, and hops, and a considerable increase was made to the assessed taxes, besides which an addition, under the name of a modification, was made to the tax on imports and exports, previously known under the name of the convoy duty.

At this time the aggregate amount of permanent taxes was 38½ millions, exactly double what it had been at the breaking out of the war in 1793. During those nine years, taxes to the amount of 280,000,000*l.*, exclusive of the cost of collection, had been levied from the people; and a few words are necessary in order to account for the seeming contradiction implied in the fact, that, notwithstanding this ruinous rate of expenditure, many of the great interests throughout the country wore the outward appearance of prosperity. A nation engaged in an expensive war, which calls for the systematic expenditure of large sums beyond its income, may be likened to an individual spendthrift during his career of riot and extravagance; all about him wears the aspect of plenty and prosperity, and this appearance will continue until his means begin to fail, and those who have fattened upon his profusion are at length sent away empty. The enormous expenditure of the Government, joined to the state of the currency (as already explained), necessarily caused a general and great rise of prices: as regarded agricultural produce, this effect was exaggerated by the ungenial nature of the seasons. Rents had risen throughout the country in a far greater degree than the necessary expenditure of the land-owners, who thence found their situations improved, notwithstanding the additional load of taxation. The great number of contractors and other persons dealing with the Government had derived a positive benefit from the public expenditure, and, being chiefly resident at the seat of Government, they were enabled greatly to influence the tone of public opinion. The greater command of money thus given to considerable classes occasioned an increased demand for luxuries of foreign and domestic production, from which the merchants and dealers derived advantage. There were, besides, other classes of persons who profited from the war expenditure. These were the producers of manufactured goods, and those who dealt in them, and who found their dealings greatly increased by means of the foreign expenditure of the Government in subsidies and expeditions, the means for which were furnished through those dealings: the manufacturers were at the same time beginning to reap the advantages that have since been experienced in a more considerable degree from the series of inventions begun by Hargreaves and Arkwright, and which acted in some degree as palliatives to the evil effects of the Government profusion.

As in the case of the spendthrift, while all these causes were in operation, there was an appearance of prosperity, and those who were profiting from this state of things were anxious to keep up the delusion. That it was no more than delusion will be at once apparent to all who examine below the surface, and who inquire as to the condition of poverty and wretchedness into which the great mass of the people were then plunged. In some few cases there had been an advance of wages; but this occurred only to skilled artisans, and even with them the rise was wholly incommensurate with the increased cost of all the necessaries of life. The mere labourer—he who had nothing to bring to market but his limbs and sinews—did not participate in this partial compensation for high prices, but was, in most cases, an eager competitor for employment, at the same or nearly the same wages as had been given before the war. Nor could it well be otherwise, since the demand for labour can only increase with the increase of the capital destined for the payment of wages; and we have seen that capital was so far from being suffered to accumulate, that it was dissipated by the Government expenditure more rapidly than it could be accumulated by individuals. In London and its vicinity the rates of wages are necessarily higher, because of the greater expense of living than in country districts; and it is asserted, from personal knowledge of the fact, that at the time in question there was a superabundant supply of labourers constantly competing for employment at the large Government establishments, where the weekly wages did not exceed 15*s*., while the price of the quartern loaf was 1*s*. 10*d*., and the other necessary outgoings of a labourer's family were nearly as high in proportion. If we contrast the weekly wages at the two periods of 1790 and 1800, of husbandry labourers and of skilled artisans, measuring them both by the quantity of wheat which they could command, it will be seen that the former could, in 1790, purchase 82 pints of wheat, and in 1800 could procure no more than 53 pints, while the skilled artisan, who in 1790, could buy 169 pints, could procure in 1800 only 83 pints. To talk of the prosperous state of the country under such a condition of things involves a palpable contradiction. It would be more correct to liken the situation of the community to that of the inhabitants of a town subjected to a general conflagration, in which some became suddenly enriched by carrying off the valuables, while the mass were involved in ruin and destitution.

It may be objected to the view here taken, but which is founded upon facts that hardly admit of controversy, that, had the condition of the country been such as is represented, we must have sunk under the greater efforts we were so soon after called on to sustain; and there is every reason to believe that, but for the invention of the spinning-jenny, and the improvements in the steam-engine, which have produced such

almost magical effects upon the productive energies of this kingdom, it would have been impossible to have withstood the combination with which, single-handed, we were called upon to contend. The manner and degree in which these powerful agents have enabled us to withstand and to triumph over difficulties unparalleled in the history of the world, have been shown in a preceding section of this inquiry.

CHAPTER II.

PUBLIC INCOME AND EXPENDITURE.

Gigantic Expenditure during the War—Consequent Exhaustion—Gloomy Forebodings of Political Writers in former Times—Amount of Debt, 1793 to 1816—Yearly Income and Expenditure, 1792 to 1849—Debts contracted, 1801 to 1821—Sinking Fund—Dead-weight Annuity—Conversion of Perpetual into Terminable Annuities—Expenditure beyond Income during the War—Income beyond Expenditure since—Plans of Finance—Budgets.

THE public expenditure of England during the war which was begun in 1793, and continued (with short intermissions in 1801 and 1814) until the final overthrow of Napoleon in 1815, was conducted throughout upon a truly gigantic scale. In 1792, the last year of peace, the entire public expenditure of the kingdom was 19,859,123*l.*, which sum included 9,767,333*l.* interest upon the public debt. In 1814 the current expenditure amounted to 76,780,895*l.*, and the interest upon the debt to 30,051,365*l.*, making an aggregate sum of 106,832,260*l.* paid out of the public exchequer for the disbursements of that one year. This is the largest annual outlay ever made; that of the previous year was within one million of the same amount.

It is hardly possible to conceive that the public expenditure could have been long continued upon this scale of magnitude; the state of exhaustion under which the country was made to suffer, during the first few years of peace that followed, sufficiently attests the truth of this opinion. The financial efforts of the Government had been made for several preceding years with a degree of lavish profusion that was continually augmented until it reached the height above mentioned; the expenditure, including interest upon the debt, during the ten years from 1806 to 1815 inclusive, averaged 84,067,761*l.* per annum, sums which, until the years in which they were actually expended, it would have been considered wholly chimerical to expect to raise. The experience of that period has shown how impossible a thing it is to judge correctly from the past as to the growing resources of our country, or it might be confidently affirmed that, during the concluding years of this series, we had assuredly reached the limit of possibility. Without that experience for their guidance, our ancestors, in former but not very

remote times, gave way to gloomy forebodings as to their future prospects, at which we cannot but smile, when thinking of the comparatively pigmy efforts which called them forth. Some of those forebodings have been recorded by Sir John Sinclair, in his work on the public revenue of this kingdom. A few passages upon the subject, taken from that work, and with the dates at which they were written, may not be without interest to the reader at the present moment:—

1736. "The vast load of debt under which the nation still groans is the true source of all those calamities and gloomy prospects of which we have so much reason to complain. To this has been owing that multiplicity of burthensome taxes which have more than doubled the price of the common necessaries of life within a few years past, and thereby distressed the poor labourer and manufacturer, disabled the farmer to pay his rent, and put even gentlemen of plentiful estates under the greatest difficulties to make a tolerable provision for their families."—*The Craftsman*, No. 502, 14th February, 1736.

At the time this gloomy picture was drawn the public debt did not exceed 50,000,000*l.*, and the annual charge on that account was somewhat under 2,000,000*l.*, being considerably below the sums added to the public burthens in the single year 1814.

1749. "Our parliamentary aids, from the year 1740 exclusively, to the year 1748 inclusively, amount to 55,522,159*l.* 16*s.* 3*d.*, a sum that will appear incredible to future generations, and is so almost to the present. Till we have paid a good part of our debt, and restored our country in some measure to her former wealth and power, it will be difficult to maintain the dignity of Great Britain, to make her respected abroad, and secure from injuries or even affronts on the part of her neighbours."—*Some Reflections on the present State of the Nation*, by Henry St. John Lord Bolingbroke.

The debt, to the effects of which so much evil is here attributed, was still under 80,000,000*l.*, and the annual interest scarcely more than 3,000,000*l.*

1756. "It has been a generally-received notion among political arithmeticians, that we may increase our debt to 100,000,000*l.*, but they acknowledge that it must then cease, by the debtor becoming bankrupt."—*Letters* by Samuel Hannay, Esq.

In the few years that preceded the publication of Mr. Hannay's letters the debt had been somewhat diminished, so that it amounted to about 75,000,000*l.*, and the annual charge on the country to 2,400,000*l.*

1761. "The first instance of a debt contracted upon parliamentary security, occurs in the reign of Henry VI. The commencement of this pernicious practice deserves to be noted; a practice the more likely to become pernicious the more a nation advances in opulence and credit.

The ruinous effects of it are now become apparent, and threaten the very existence of the nation." — Hume's *History of England*, 8vo edition, 1778, vol. iii. p. 215.

The public burthens had by this time so far exceeded the possible limit assigned by Mr. Hannay, that the debt amounted to nearly 150,000,000*l.*, and the annual interest to 4,800,000*l.* The amount was somewhat reduced between that period and the breaking out of the American war, when a succession of loans again became necessary. On winding up the accounts of that contest, the debt amounted to 268,000,000*l.*, and the annual charge to 9,500,000*l.* On the 5th of January, 1793, just before the beginning of the war of the French Revolution, the debt continued nearly the same as at the beginning of the peace (the exact amount of funded and unfunded debt, including the value of terminable annuities, was 261,735,059*l.*, and the annual charge was 9,471,675*l.*) From that time to the peace of Amiens hardly a year passed without witnessing some increase to the national burthens, so that at Midsummer, 1802, the capital of the funded and unfunded debt amounted to 637,000,000*l.* On the 5th of January, 1816, the capital was 885,186,323*l.*, and the annual charge was 32,457,141*l.* The following statement exhibits the progressive state of the public income and expenditure, from 1792 to 1849, including the annual charge on account of the public debt; and the amount of money raised by loans and the funding of Exchequer bills, with the amount and description of stock created, and the annual charge in respect of the same, in each year from the beginning of the present century.

An extraordinary degree of delusion is observable in the proceedings of the different finance ministers by whom the support of the sinking-fund was advocated during the war. It has been pretended that the purchases made by means of that fund had the effect of keeping up the market value of the public debt, and thereby enabled the minister to contract loans upon more advantageous terms than without this machinery would have been possible. It may well be doubted, however, whether the repurchase in this manner, from time to time, of parts only of that surplus portion of the public debt which was created for the express purpose of such operations, had any real effect in raising the price of the remaining portion of the public securities—in other words, whether the price, thus factitiously acted upon, of the larger amount of debt, was at any time greater than the price would have been of the smaller amount of debt that would have existed if the sinking fund had not been created, the purchases of the Commissioners never having in fact accomplished more than the repurchase of the so-[illegible] created part of the debt. It has been [illegible]er urged in de[illegible] sinking fund, that the prospect which [illegible]he ministe[illegible] of the speedy redemption of the w[illegible], the effe[illegible]

Abstract of Public Income and Expenditure in the United Kingdom, in each Year from 1792 to 1849.

Years.	INCOME.			EXPENDITURE.			
	Amount of Revenue paid into the Exchequer, the Produce of Taxation.	Amount received on account of Loans and Exchequer Bills, beyond the Amount redeemed in the Year.	Total Amount raised for Public Uses.	Interest paid on Public Debt, Funded and Unfunded.	Sums applied to redemption of Public Debt beyond the Amount of Loans, &c., in the Year.	Current Annual Public Expenditure.	Total Amount Paid and Expended in the Year.
	£.	£.	£.	£.	£.	£.	£.
1792	19,258,814	..	19,258,814	9,767,333	2,421,681	7,670,109	19,859,123
1793	19,845,705	4,877,956	24,723,661	9,437,862	..	14,759,208	24,197,070
1794	20,193,074	6,998,389	27,191,463	9,890,904	..	17,851,213	27,742,117
1795	19,883,520	30,464,831	50,348,351	10,810,728	..	37,603,449	48,414,177
1796	21,454,728	22,244,982	43,699,710	11,841,204	..	30,334,087	42,175,291
1797	23,126,940	30,356,873	53,483,813	14,270,616	..	36,469,993	50,740,609
1798	31,035,363	16,858,503	47,893,866	17,585,518	..	33,541,727	51,127,245
1799	35,602,444	21,714,863	57,317,307	17,220,983	..	38,403,421	55,624,404
1800	34,145,584	23,030,529	57,176,113	17,381,561	..	39,439,706	56,821,267
1801	34,113,146	27,305,271	61,418,417	19,945,624	..	41,383,555	61,329,179
1802	36,368,149	14,638,254	51,006,403	19,855,588	..	29,693,619	49,549,207
1803	38,609,332	8,752,761	47,362,153	20,699,864	..	28,298,366	48,998,230
1804	46,176,492	14,570,763	60,747,255	20,726,772	..	38,649,436	59,376,208
1805	50,837,706	16,849,801	67,747,507	22,141,426	..	45,027,892	67,169,318
1806	55,796,086	13,035,344	68,831,430	23,000,006	..	45,941,205	68,941,211
1807	59,333,321	10,432,934	69,772,255	23,362,685	..	44,250,357	67,613,042
1808	62,998,191	12,095,044	75,093,235	23,158,982	..	49,984,105	73,143,087
1809	63,719,400	12,298,379	76,017,779	24,213,867	..	52,352,146	76,566,013
1810	67,144,542	7,792,444	74,936,986	24,246,946	..	52,618,602	76,865,548
1811	65,173,545	19,143,953	84,317,498	24,977,915	..	58,757,308	83,735,223
1812	65,037,850	24,790,697	89,828,547	25,546,508	..	63,210,816	88,757,324
1813	68,748,363	39,641,282	108,397,645	28,030,239	..	77,913,488	105,943,727
1814	71,134,503	34,563,603	105,698,106	30,051,365	..	76,780,895	106,832,260
1815	72,210,512	20,241,807	92,452,319	31,576,074	..	60,704,106	92,280,180
1816	62,264,546	514,059	62,778,605	32,938,751	..	32,231,020	65,169,771
1817	52,055,913	..	52,055,913	31,436,245	1,826,814	22,018,179	55,281,238
1818	53,747,795	..	53,747,795	30,880,244	1,624,606	20,843,728	53,348,578
1819	52,648,847	..	52,648,847	30,807,241	3,163,130	21,436,130	55,406,509
1820	54,282,958	..	54,282,958	31,157,846	1,918,019	21,381,382	54,457,247
1821	55,834,192	..	55,834,192	31,955,304	4,104,457	21,070,825	57,130,586
1822	55,663,650	..	55,663,650	29,921,403	2,962,564	20,826,567	53,710,624
1823	57,672,999	..	57,672,999	29,215,905	5,261,725	21,746,110	56,223,740
1824	59,362,403	..	59,362,403	29,066,350	6,456,559	23,703,252	59,231,161
1825	57,273,869	..	57,273,869	28,060,287	9,900,725	23,559,741	61,520,753
1826	54,804,989	..	54,804,989	28,076,957	1,195,531	25,808,585	55,081,073
1827	54,932,518	..	54,932,518	28,234,847	2,023,028	25,560,446	55,823,321
1828	55,187,142	..	55,187,142	29,035,506	4,667,965	21,407,670	54,171,141
1829	50,786,682	..	50,786,682	29,155,612	2,760,003	19,919,522	51,835,137
1830	50,056,616	..	50,056,616	29,118,858	1,935,465	18,024,085	49,078,108
1831	46,424,440	..	46,424,440	28,341,416	2,673,858	18,781,882	49,797,156
1832	46,988,755	333,989	47,322,744	28,323,751	5,636	18,050,245	46,379,632
1833	46,271,326	..	46,271,326	28,522,507	1,023,784	16,235,735	45,782,026
1834	46,425,263	..	46,425,263	28,504,096	1,776,378	16,397,605	46,678,079
1835	45,803,369	..	45,803,369	28,514,610	1,270,050	15,884,649	45,669,309
1836	48,591,180	..	48,591,180	29,243,598	1,590,727	17,258,871	48,093,196
1837	46,475,194	..	46,475,194	29,489,571	1,985,885	17,641,383	49,116,839
1838	47,333,460	..	47,333,460	29,260,238	7,496	18,418,449	47,686,183
1839	47,844,899	..	47,844,899	29,454,062	..	19,903,629	49,357,691
1840	47,567,565	..	47,567,565	29,381,718	8,016	19,779,818	49,169,552
1841	48,084,360	853,037	48,937,397	29,450,145	..	20,735,584	50,185,729
1842	46,965,631	1,614,395	48,580,026	29,428,120	..	21,517,049	50,945,169
1843	52,582,817	..	52,582,817	29,261,160	8,741	21,870,353	51,148,254
1844	54,003,754	..	54,003,754	30,435,459	1,563,361	20,152,189	52,211,009
1845	53,060,354	..	53,060,354	28,253,872	4,143,891	20,988,840	53,386,603
1846	53,790,138	..	53,790,138	28,077,987	..	22,865,843	50,943,830
1847	51,546,265	7,476,353	59,022,617	28,141,531	..	26,361,416	54,502,947
1848	53,388,717	1,593,945	54,982,662	28,563,517	..	25,621,619	54,185,136
1849	52,951,749	374,568	53,326,317	28,323,961	21,074	22,520,661	50,874,696

Statement showing the Amount of Money raised by Loans, and the Funding of Exchequer Bills, with the Amount and description of Stock created, and the Annual Charge thereon, in the Years undermentioned.

Years.	Amount of Money raised by Loan.	Amount of Exchequer Bills Funded.	AMOUNT AND DESCRIPTION OF STOCK CREATED.					Rate of Interest per Cent. for Money.	Amount of Annual Charge Incurred.
			3 per Cent.	4 per Cent.	5 per Cent.	Total of Perpetual Annuities.	Annuities to terminate in 1860.		
	£.	£.	£.	£.	£.	£.	£.	£.	£.
1801	20,500,000	..	32,185,000	..	..	32,185,000	..	4 14 2	965,550
1802	28,000,000	..	49,210,000	..	..	49,210,000	..	5 5 5½	1,476,300
,,	..	8,910,450	4,455,225	4,455,225	2,227,612	11,138,062	7,796	4 16 7¾	431,043
1803	25,000,000	..	32,990,625	..	..	32,990,625	..	3 19 2	989,718
1804	12,000,000	..	19,200,000	..	..	19,200,000	38,500	5 2 0	614,500
1805	14,500,000	..	26,390,000	..	..	26,390,000	..	5 9 2	791,700
1806	22,500,000	..	38,700,000	..	..	38,700,000	..	5 3 2	1,161,000
,,	1,500,000	..	..	..	360,000	360,000	75,000	5 17 0½	93,000
1807	20,000,000	..	33,200,000	..	..	33,200,000	..	4 19 7	996,000
1808	14,200,000	..	19,880,000	..	1,505,200	21,385,200	..	4 14 7	743,948
,,	1,500,000	..	2,409,625	..	..	2,409,625	..	4 16 4½	72,288
1809	..	4,000,000	..	237,900	4,001,353	4,239,253	..	5 4 9½	209,583
,,	10,500,000	..	..	12,408,375	..	12,408,375	..	4 14 6½	496,335
1810	..	7,932,100	..	380,336	7,873,308	8,253,644	..	5 3 1	408,878
,,	14,600,000	..	8,760,000	8,760,000	..	17,520,000	64,483	4 12 1	677,683
1811	13,400,000	8,311,000	18,810,250	..	8,581,107	27,391,357	..	4 11 6	993,362
1812	..	12,000,000	..	..	12,444,712	12,444,712	..	5 3 8	622,236
,,	12,000,000	..	14,400,000	2,400,000	..	16,800,000	41,500	4 14 1½	569,500
1813	22,500,000	12,075,043	39,600,000	..	13,199,031	52,799,031	..	5 6 10½	1,847,951
1814	49,000,000	15,755,700	84,840,000	5,220,423	13,860,000	103,920,423	89,250	5 10 0	3,561,767
1815	24,000,000	..	24,840,000	..	7,200,000	32,040,000	..	4 12 1	1,105,200
1816	36,000,000	18,189,982	62,640,000	3,600,000	21,208,402	87,448,402	..	5 13 10	3,083,620
1819	..	27,262,000	34,895,360	..	..	34,895,360	..	3 16 10	1,046,860
1820	12,000,000	..	17,152,000	..	..	17,152,000	..	4 5 9	514,560
1821	5,000,000	7,000,000	7,110,000	..	6,930,000	14,040,000	..	4 11 7½	559,800

ciling the people to the payment of a larger amount of taxes than they would otherwise have been willing to pay. Allowing that the effect here stated was produced, we may still doubt the wisdom of that Government which is obliged to resort to a juggle in order to reconcile the people to its measures, and especially when, as in the case under examination, the delusion was so expensive and likely to prove so permanently injurious in its nature.

The average rate at which 3 per cent. stock was created between 1793 and 1801 was 57*l.* 7*s.* 6*d.* of money for 100*l.* stock, and the average market price during that period was 61*l.* 17*s.* 6*d.* for 100*l.* stock. The loss to the public upon the additional sum borrowed in order that it might be redeemed during that period, which was 49,655,531*l.*, amounted to 4½ per cent., or 2,234,500*l.* Between 1803 and the termination of the war, the average price at which loans were contracted was 60*l.* 7*s.* 6*d.* per 100*l.* stock, and the average market price during that time was 62*l.* 17*s.* 6*d.* per 100*l.* The loss was, therefore, 2½ per cent. upon the sum redeemed during that time, 176,173,240*l.* or 4,404,331*l.*, making together an amount of 6,638,831*l.* absolutely lost to the public by these operations. This amount, reckoned at the average price of the various loans, is equivalent to a capital of more than eleven millions of 3 per cent. stock, with which the country is now additionally burthened through the measure of borrowing in a depressed market more money than was wanted in order to its being repaid when the market for public securities was certain to be higher. The fallacy attending this system is now so fully recognised, that it is not likely any minister will in future make a show of redeeming debt at the moment when circumstances compel him actually to increase its amount for that purpose.

Another error of a still more important nature, involved in this system, remains to be noticed. The absurdity of borrowing money in order to extinguish debt could never have been seriously adopted but with the anticipation of the good effects that might be drawn from such a course after the necessity for further borrowing should cease, when it might be beneficial to apply towards the redemption of the debt the high scale of taxation which that system rendered practicable. There never could have existed any doubt of the fact, that whenever the necessity for borrowing should cease, the market value of the public funds would advance greatly, and would, therefore, in an equal degree limit the redeeming power of the surplus income, however arising. The knowledge of this fact should have led the ministers, by whom successive additions were made to the public debt, to the adoption of a course which would have enabled them to turn this rise of prices to the advantage of the public, instead of its being, as it has proved, productive of loss; and this end would certainly have been accomplished, if at the expense of a

small present sacrifice the loans had been contracted at a high rate of interest, instead of their having been contracted, as for the most part they were, in 3 per cent. annuities. It is presumable that, if the borrowing had been restricted to the sums actually wanted from time to time, without thought of a sinking fund, the public might possibly have had to pay at the outside a quarter per cent. more of annual interest than they actually paid. At this rate the deficiency of income compared with expenditure, between 1793 and 1815, which amounted, as will be shown in the next table, to 425,482,761*l.*, would have occasioned an addition to the capital of the debt to the amount of 455,266,554*l.* of 5 per cent. stock, the annual interest of which would have been 22,763,327*l.*, instead of a nominal capital of 547,292,764*l.*, with the annual additional charge of 20,690,871*l.* At the close of the war, the nominal capital of the debt would have then amounted to 724,285,729*l.*, and the annual charge to 32,530,660*l.*, instead of 816,311,939*l.* of capital, and 30,458,204*l.* of annual charge, which was the state of the unredeemed public debt on the 5th of January, 1816. The Government would then have been in the most favourable position for taking advantage of the lowering of the rate of interest which was certain to follow, and many years before the present time the whole of the 5 per cent. annuities might have been converted, without any addition to the capital, into annuities of the same amount, bearing interest at the rate of 3½ per cent., or perhaps lower. Assuming, however, that the reduction would not have gone lower than 3½ per cent., and taking into consideration the surplus revenue which has been actually applied to the redemption of debt between 5th January, 1816, and 5th January, 1849, which, as will be seen, amounted to 45,779,046*l.*, the funded debt existing on 5th January, 1837, would have amounted to 678,506,683*l.*, and the annual charge to 23,747,734*l.*, instead of its actual amount 773,168,316*l.*, and its actual annual charge, 27,686,458*l.*; showing that the loss entailed on the country by the plan pursued, of funding the debt in stock bearing a nominal low rate of interest, is 94,661,633*l.* of capital, and 3,938,724*l.* of annual charge. It is not possible to calculate with certainty the further benefits that must have resulted from the repeal of five millions and a half of annual taxes, which would have been practicable beyond the amount actually repealed; but it is probably much under-estimating those benefits to state, that among their results the amount of public income over expenditure would have been so far augmented that the unredeemed debt would not at this time have exceeded six hundred millions, while the annual charge upon the same would have been twenty-one millions, a state of things at which, if the peace of Europe should continue undisturbed, and if our progress should only equal our past experience, we may possibly hope to arrive in about half a century.

The charge of inconsistency on the part of our finance ministers in those days is fully deserved by their adoption of two measures having for their objects results exactly opposed to each other. These measures are, first, the creation of what is called the dead-weight annuity, and secondly, the conversion of perpetual annuities into annuities for lives or for terms of years; the effect of the first being to bring present relief at the expense of future years, while the second increases the present burthen with the view of relieving posterity. When the measure for commuting the half-pay and pensions was brought forward in May, 1822, the charge upon the country on that account was estimated at about five millions. This was necessarily a decreasing charge, and from year to year the public would have been relieved by the falling in of lives, until at the end of forty-five years, the whole, according to probability, would have been extinguished. In order to turn to present advantage this prospective diminution of burthen, it was attempted to commute the whole of those annually-diminishing payments into an unvarying annuity to last during the whole probable term of forty-five years, and it was computed that, by the sale of a fixed annuity of 2,800,000*l.*, funds might be obtained in order to meet the diminishing demands of the quarterly claimants. This scheme was only partially carried into execution by means of an arrangement made with the Bank of England, under which that corporation advanced to the Government, in nearly equal payments, during the six years from 1823 to 1828, the sum of 13,089,419*l.* as the purchase-money of an annual annuity of 585,740*l.* to be paid until 1867. The result of this operation has been to save the immediate payment during the years in which it was in progress of 9,574,979*l.*, and in return to fix upon the country the annual payment for thirty-nine years thereafter of 585,740*l.*

In the prosecution of the opposite plan of converting perpetual annuities into annuities terminable at stated periods, or upon the occurrence of certain natural contingencies, the amount of terminable annuities has advanced from 1,888,835*l.*, at which it stood at the end of the war, to 3,755,099*l.* at the beginning of the year 1850. It would occupy considerable space to exhibit the progress of this conversion from year to year; and it will probably suffice to exemplify the result of the operation during one year (1834). In that year the perpetual annuities received in exchange amounted to 6,500,169*l.* of capital, bearing an annual charge of 202,831*l.*, and there were granted in lieu of the same—

	£.
Annuities for lives	195,337
„ for terms of years	313,138
Deferred annuities	2,871
Together	£511,346

making a present annual increase of 308,514*l.* to the public burthens in order to ensure the earlier extinction of the charge of 202,831*l.*

It is not necessary here to inquire which of these two modes of proceeding is preferable. Under different circumstances either of them might be wise or prudent, but it is quite impossible that at the same time, and consequently under the same circumstances, both could be either wise or prudent, and the minister and legislators by whom the plans were proposed and sanctioned must be allowed to have stultified themselves by the operations. Of the two courses that is assuredly the most generous under which the parties by whom it is adopted subject themselves to additional burthen in order to lighten the load for their successors, and indeed it would seem no more than an act of justice on the part of those by whom the debt was contracted to adopt every means fairly within their power for its extinction.

It is singular that, with so much experience and so much of scientific acquirement that might have been brought to the correct elucidation of this subject, the tables first adopted for the creation of terminable annuities were incorrect, to a degree which entailed a heavy loss upon the public. The system was established in 1808, and during the first year of its operation annuities were granted to the amount of 58,506*l.* 10*s.* per annum. Of that amount there continued payable 23,251*l.* per annum at the beginning of 1827, when, to adopt the calculation of the actuary of the National Debt, as given in a Report to the Chancellor of the Exchequer, the public had already sustained a loss of more than 10,000*l.* by the transactions, besides having the above annual sum of 23,251*l.* still to pay for an indefinite term. In this report of Mr. Finlaison, he states that the loss to the public through miscalculation in these tables was then (April, 1827) proceeding at the rate of 8000*l.* per week, and during the three preceding months had exceeded 95,000*l.* The discovery of this blunder had been made and pressed upon the attention of the finance minister as early as 1819, but no active steps were taken to remedy it until 1828, and even then the rates at which annuities were granted upon the lives of aged persons were, after a time, found to be so unduly profitable to the purchasers, that the Government was again obliged to interfere, and to limit the ages upon which life annuities could be obtained.

It is quite impossible that any similar series of blunders could have been committed by any private persons or association of individuals, whose vigilance would have been sufficiently preserved by their private interest; and it is disgraceful that the Government, which could at all times command the assistance of the most accomplished actuaries, should have fallen into them. It is yet more disgraceful that, after the evil had been discovered and pressed upon its notice, so many years were

suffered to elapse before any step was taken to put a stop to the waste of public money.

It would require a voluminous account to explain all the financial operations of the Government during the period embraced in the foregoing statements. In the earlier years of that time, while on the one hand the minister was annually borrowing immense sums for the public service, an expensive machinery was, as we have seen, employed to keep up a show of diminishing the debt, by which means the people were brought to view with some degree of complacency the most ruinous addition to their burthens, under the expectation of the relief which, through the magical effect of the sinking fund, was to be experienced by them in future years. The establishment and support of the sinking fund was long considered as a master-stroke of human wisdom. Having since had sufficient opportunity for considering its effects, we have arrived at a different conclusion, and can no longer see any wisdom in the plan of borrowing larger sums than were wanted, and paying in consequence more dearly for the loan of what was actually required, in order to lay out the surplus to accumulate into a fund for buying up the debt at a higher price than that at which it was contracted.

In the Fourth Report of the Select Committee on Public Income and Expenditure, which was printed by order of the House of Commons in 1828, there are three statements showing the difference between the public receipts and disbursements in the ten years ended 5th January, 1802; the fourteen years ended 5th January, 1816; and the twelve years ended 5th January, 1828; an abstract of which is here given, and the statement is further continued for the twenty-two years ended 5th January, 1850:—

BALANCES OF INCOME AND EXPENDITURE.

Ten Years ended 5th January, 1802.

	£.			£.
Expenditure . .	447,812,773	Raised by creation of debt . .		380,997,380
Income . . .	258,659,322	Applied to redemption of debt	£180,346,440	
		Money raised for Austria . .	4,600,000	
		Discount and charges of receipt	2,416,497	
				187,362,937
				193,634,443
		Balance 5th January, 1802 . .	9,027,021	
		Ditto, ditto, 1792	4,546,029	
				4,480,992
Expenditure more than Income .	£189,153,451			£189,153,451

Fourteen Years ended 5th January, 1816.

	£.			£.
Expenditure .	1,059,683,370	Raised by creation of debt . .		900,107,717
Income . . .	823,354,060	Applied to redemption of debt.	£651,952,651	
		Raised for East India Company	2,500,000	
		Discount, &c.	2,887,199	
				657,339,850
				242,767,867
		Balance, 5th January, 1816 . .	15,465,578	
		Ditto, ditto, 1802	9,027,021	
				6,438,557
Expenditure more than Income .	£236,329,310			£236,329,310

Twelve Years ended 5th January, 1828.

	£.			£.
Income . . .	670,198,286	Applied to redemption of debt.		580,454,452
Expenditure . .	640,966,521	Discount and charges of receipt		544,588
				580,999,040
		Raised by creation of debt . .		540,530,450
				40,468,590
		Balance 5th January, 1816 . .	£15,465,578	
		Ditto, ditto, 1828	4,228,753	
				11,236,825
Income more than Expenditure .	£29,231,765			£29,231,765

Twenty-two Years ended 5th January, 1850.

	£.			£.
Income . . .	1,092,219,672	Applied to redemption of debt, beyond the amount of debt created		11,054,495
Expenditure .	1,075,645,391	Balance 5th January, 1850 . .	9,748,539	
		Ditto, ditto, 1828	4,228,753	
				5,519,786
Income more than Expenditure .	£16,547,281			£16,574,281

It appears from this statement, that during the ten years from 5th January, 1792, to 5th January, 1802—

	£.
The public expenditure exceeded the income	189,153,451
Between 1802 and 1816 the excess of expenditure was . .	236,329,310
Excess of expenditure during 24 years of war	425,482,761
During 34 years of peace, between 1816 and 1850, the excess of income over expenditure has been	45,779,046

At this rate it would require 316 years of peace to cancel the debt incurred during 24 years of war, or 13 years for 1; but the comparison is even more unfavourable than this, because at the time of borrowing the rate of interest is high, and the value of public securities low, whereas at the time of liquidation the reverse of these circumstances is experienced, so that on the most favourable supposition it requires 15 years of saving in peace to repair the evil consequences of one year of war expenditure; at which rate, our successors who may be living about the close of the 22nd century might, if during all that time the nation should remain at peace, find themselves relieved from that portion of the public debt which was contracted since 1792. On the other hand, this period would be somewhat hastened through the extinction of that part of our public debt which consists of terminable and life annuities.

It is necessary here to explain briefly the financial plans which have at different times within the present century been proposed by the Government and sanctioned by Parliament.

At the breaking out of the war in 1803, it became necessary to meet as far as possible the increased expenditure of the country by the imposition of new taxes, among which was included the income tax, under the name of a property tax. The greater part of these taxes were declared to be of a temporary character, and were to cease in six months after the re-establishment of peace. It soon became apparent, however, that to adhere to this stipulation would be impossible, since the exigencies of the country required the contraction of loans, the interest of which could not be provided, except by the gradual appropriation of one portion after another of the proceeds of the war taxes. Under these circumstances, it was proposed, in 1807, by Lord Henry Petty, then Chancellor of the Exchequer, to depart from the usual practice of confining the financial arrangements to the current year, and to determine at once, as far as was possible, the amount which it would be necessary to raise during each one of a series of years, providing beforehand the means for meeting the increasing burthen. It was assumed that the loans to be raised in 1807 and the two following years should be each 12,000,000*l.*; that for 1810 was stated at 14,000,000*l.*, and during each of the ten ensuing years the amount was assumed at 16,000,000*l.* It was calculated that the interest upon those loans would be met, up to that for the year 1811, by the falling in of annuities, after which, the war taxes were to be pledged, at the rate of 10 per cent., upon each loan; 5 per cent. to pay the interest, and 5 per cent. to accumulate as a sinking fund for discharging the principal. The deficiency that would be occasioned by this appropriation year by year of the war taxes was to be met by supplementary loans, for the interest on which, and to provide a sinking fund for their redemption, it would be necessary to impose new taxes. By these means it was expected that the country would

have been able to meet the charges of an expensive war during a series of years with only a moderate addition to the public burthens. The ministry, of which Lord Henry Petty formed a part, having gone out of office before the next annual finance arrangement was brought forward, his plan was abandoned, and no attempt has since been made by any minister to form financial arrangements embracing the circumstances of future years.

The explanations offered each year in the House of Commons by the Chancellor of the Exchequer, concerning the financial condition of the country, are not given in such form as to be readily understood. In the accounts by which the statements are accompanied, the interest of the debt and other permanent charges are not included, and on the other hand nothing is stated regarding the produce of the permanent taxes, forming what is called the consolidated fund, except the amount of its surplus or deficiency, as the case may be, after providing for the permanent charge upon it. The *Budget*, as it is the practice to call this annual exposition, explains on the one hand the sums required for the public service during the year, under the different heads of Navy, Army, Ordnance, and Miscellaneous Services, together with any incidental charges which may apply to the year; and on the other hand are given the *ways and means* for meeting the same. These ways and means consist of the surplus (if any) of the consolidated fund, the annual duties, and such incidental receipts as come in aid of the national resources.

The detail of these *budgets* would consequently throw but little light upon the financial condition of the country, if even they had been preserved in an authentic form, which has not been done. Any statements of the kind that could be offered must be drawn from unauthorized publications, in which they have been given without regard to methodical arrangement, while, as respects some years of the series, we should seek in vain for any statement whatever.

CHAPTER III.

PRODUCE OF TAXES.

Taxes Imposed 1801 to 1849—Taxes Repealed 1814 to 1849—Produce of Taxes in proportion to Population—Probate and Legacy Duties—Customs and Excise Duties—"Taxes"—Post-office Duties—Duties of Protection—Retaliatory Duties—Their effect on Foreign Governments.

THE following tables exhibit, 1st, the estimated amount of taxes imposed under each of the five chief heads of revenue; viz., Customs, Excise, Stamps, Taxes, and Post-office, in each year of the present century; and, 2nd, the estimated amount of taxes repealed, expired or reduced, in each year from the peace, in 1814, to the present time.

Estimated Produce of Taxes imposed in each Year from 1801 *to* 1849.

Years.	Customs.	Excise.	Stamps.	Taxes.	Post-office.	Total.
	£.	£.	£.	£.	£.	£.
1801	255,000	435,000	574,000	306,000	150,000	1,720,000
1802	1,000,000	2,000,000	..	1,000,000	..	4,000,000
1803	2,000,000	6,000,000	..	4,500,000	..	12,500,000
1804	1,000,000	..	..	..	..	1,000,000
1805	80,000	490,000	330,000	430,000	230,000	1,560,000
1806	864,000	136,000	..	5,000,000	..	6,000,000
1807	..	..	..	..	..	..
1808	..	..	200,000	..	..	200,000
1809	..	..	..	..	..	..
1810	..	..	..	..	..	..
1811	866,600	751,000	..	..	..	1,617,600
1812	..	760,000	..	515,000	220,000	1,495,000
1813	850,000	130,000	..	..	..	980,000
1814	288,685	..	..	..	..	288,685
1815	176,772	..	..	..	..	176,772
1816	144,658	230,000	400	..	..	375,058
1817	6,691	1,300	..	..	..	7,991
1818	56	1,300	..	..	..	1,356
1819	1,137,902	1,957,000	..	..	7,400	3,102,302
1820	4,602	115,000	..	..	..	119,602
1821	..	..	42,642	..	2,200	44,842
1822	..	..	..	..	..	..
1823	..	3,800	14,796	..	..	18,596
1824	45,605	..	..	..	4,000	49,605
1825	..	43,000	..	..	5,100	48,100
1826	188,725	..	..	..	..	188,725
1827	21,402	..	..	..	..	21,402
1828	1,963	..	3	..	..	1,966
1829	..	..	..	..	..	..

Estimated Produce of Taxes imposed in each Year from 1801 *to* 1849—continued.

Years.	Customs.	Excise.	Stamps.	Taxes.	Post-office.	Total.
	£.	£.	£.	£.	£.	£.
1830	85,004	611,000	..	..	..	696,004
1831	626,206	..	210	1,170	..	627,586
1832	22,976	..	21,550	..	..	44,526
1833	..	..	..	..	..	..
1834	17,394	181,000	..	..	..	198,394
1835	75	..	..	..	5,500	5,575
1836	797	..	..	2,394	530	3,721
1837	..	100	..	..	..	100
1838	..	..	1,733	..	..	1,733
1839	..	..	..	..	..	..
1840	1,160,226	784,000	..	311,447	..	2,155,673
1841	..	..	..	..	..	..
1842	160,822	241,000	128,167	5,000,000	..	5,529,989
1843	..	..	..	..	..	..
1844	..	..	..	..	..	..
1845	..	19,000	4,720	..	..	23,720
1846	2,000	120	..	..	..	2,120
1847	..	..	..	..	..	..
1848	..	84	..	..	..	84
1849	..	..	..	..	..	..

Estimated Amount of Taxes repealed, expired, or reduced, in each Year from 1814 *to* 1849.

	£.	£.	£.	£.	£.	£.
1814	932,827	..	..	..	..	932,827
1815	222,749	..	..	..	..	222,749
1816	52,888	2,863,000	..	14,631,477	..	17,547,365
1817	864	4,000	..	31,631	..	36,495
1818	..	9,000	..	504	..	9,504
1819	10,913	14,000	23,920	195,651	25,000	269,484
1820	..	4,000	..	..	..	4,000
1821	19,932	..	73	451,304	..	471,309
1822	153,146	1,745,000	2,955	238,000	..	2,139,101
1823	346,592	1,456,000	..	2,383,143	..	4,185,735
1824	1,514,844	..	274,554	11,935	..	1,801,333
1825	2,804,357	536,000	68,720	267,162	..	3,676,239
1826	766,615	1,134,200	66,400	..	..	1,967,215
1827	1,738	..	2,300	..	80,000	84,038
1828	36,327	..	15,671	..	..	51,998
1829	126,406	..	..	..	..	126,406
1830	551,470	3,506,000	..	13,272	..	4,070,742
1831	1,031,112	529,000	..	2,940	25,000	1,588,052
1832	247,746	476,500	7,162	15,856	..	747,264
1833	346,740	626,000	156,800	402,588	..	1,532,128
1834	305,817	505,200	31,204	1,222,295	..	2,064,516
1835	31,877	131,500	..	..	..	162,877
1836	143,116	536,500	310,170	..	32,000	1,021,786
1837	234	..	..	..	..	234
1838	289	..	..	..	..	289
1839	4,950	2,000	56,308	..	1,000,000	1,063,258
1840	..	..	5,000	13,959	..	18,959
1841	27,170	..	..	..	..	27,170
1842	1,498,944	..	97,422	..	..	1,596,366
1843	171,521	240,000	..	..	..	411,521
1844	286,431	70,000	102,379	..	..	458,810
1845	3,603,561	932,000	..	..	..	4,535,561
1846	735,228	..	..	..	..	735,228
1847	344,886	..	..	..	..	344,886
1848	585,968	..	..	..	..	585,968
1849	388,798	..	..	..	..	388,798

The figures which apply to the earlier years in the first of these tables (1801 to 1803) are taken from the budget-speeches of the Chancellors

of the Exchequer; those which relate to the subsequent years, as well as the amounts given in the second table, are afforded by papers prepared in the different revenue departments, and laid before Parliament.

At first sight these statements appear in a high degree satisfactory, inasmuch as they show that the amount of duties and taxes repealed since 1814 exceeds the amount of those imposed since 1801 by more than 10 millions. So far as these branches of the revenue are concerned, the public income in 1849 exceeded that of 1801 by 19 millions —showing, under those heads, a virtual increase of 29 millions between the two periods. If, however, we submit these data to a more careful examination, the result will prove far less flattering. With the view of testing the progress of this very important subject, the following statements are offered, in which the actual produce of the principal heads of taxation is given at the periods of 1811, 1821, 1831, 1841 (the years in which the census has been taken), and in 1849; and some calculations are offered to show what the produce should have been proportionally to the increase of the population of each period.

In preparing these statements, it has been found necessary to throw together the Customs and Excise duties, because of the numerous transfers effected between these two departments, as regards the collection of revenue. The produce of these two branches of revenue is generally considered to afford a good test of the condition of the people, as shown by their power of consuming the articles upon which Excise or Customs duties are charged; so that an increase in their produce has always been held to indicate an increase of comforts brought within the reach of the mass of the population. The amount of Customs and Excise duties collected in 1801 was 19,330,867*l.* Since that time new duties, amounting to 25,797,068*l.*, have been imposed, and duties that produced 31,935,840*l.* have been repealed. Under these circumstances, the amount collected in 1849 was 34,622,284*l.*, being 15,291,417*l.*, or 79 per cent. beyond the collection of 1801; the population having increased about 77½ per cent. If a similar examination is made in regard to the produce of stamp-duties, and duties under the management of the Board of Taxes, it will be found that under the first of these heads the increase has been nearly 100 per cent., and under the head of Taxes the increase has been about 50 per cent. Under the remaining head—the Post-office—we are still in what may be called a transition state consequent upon the radical change in the rates introduced in 1839, and no fair deduction can yet be drawn from the result hitherto experienced as regards revenue. It will be seen, however, that in 1831, when the rates were at their highest, the deficiency as compared with population was nearly 25 per cent.

That the increased consumption of taxed commodities should not be greater than it is, as compared with the consumption in 1801, must strike every one with surprise, who observes the increasing power of the

mass of the people to command the comforts of life; but this fact will assume a much more instructive shape by means of the following statements, which prove that, however unsatisfactory the case may be considered at this moment, it was far more so at the earlier periods to which those statements relate, and that the change for the better may be clearly referred to the modifications which of late years have been made in our tariff.

Statement of the Progress of the Principal Branches of the Public Revenue at different Periods during the present Century, showing the actual produce of Taxation, and its produce in comparison with the increased Population.

	Customs and Excise.	Stamps.	Taxes.	Post-office.	Total.
1811	£.	£.	£.	£.	£.
Amount collected in 1801 . .	19,330,867	3,049,844	9,857,134	843,976	33,081,821
Duties and taxes imposed between 1801 and 1811 . . .	15,877,600	1,104,000	11,236,000	380,000	28,597,600
Amount to be received in 1811, by computation	35,208,467	4,153,844	21,093,134	1,223,976	61,679,421
Amount actually collected in 1811	37,466,568	5,703,913	19,819,722	1,352,538	64,342,741
Amount received beyond the computed amount	2,258,101	1,550,069	..	128,562	2,663,320
Amount received less than the computed amount	..	..	1,273,412	..	..
Amount which should have been received, taking into account the increase of 13½ per cent. of population	39,961,610	4,714,612	23,940,707	1,389,213	70,006,142
Amount deficient in proportion to increased population . .	2,495,042	..	4,120,985	36,675	5,663,401
Amount in excess in proportion to increased population . .	..	989,301	..	..	..
1821					
Amount collected in 1801 . .	19,330,867	3,049,844	9,857,134	843,976	33,081,821
Duties and taxes imposed between 1801 and 1821 . . .	21,681,566	1,147,042	11,751,000	609,600	35,189,208
	41,012,433	4,196,886	21,608,134	1,453,576	68,271,029
Duties and taxes repealed, &c. between 1814 and 1821 . .	4,134,173	23,993	15,310,567	25,000	19,493,733
Amount to be received in 1821 by computation	36,878,260	4,172,893	6,297,567	1,428,576	48,777,296
Amount actually collected in 1821	38,765,814	6,513,599	7,814,600	1,383,538	54,477,641
Amount received beyond the computed amount	1,887,554	2,340,706	1,517,123	..	5,700,345
Amount received less than the computed amount	..	..	..	45,038	..
Amount which should have been received, taking into account the increase of 29¼ per cent. of population	47,849,543	5,414,329	8,171,093	1,853,578	63,288,543
Amount deficient in proportion to increased population . .	9,083,729	..	356,403	470,040	8,810,902
Amount in excess in proportion to increased population . .	..	1,099,270	..	..	..

Statement of the Progress of the Principal Branches of the Public Revenue at different Periods during the present Century, &c.—continued.

	Customs and Excise.	Stamps.	Taxes.	Post-office.	Total.
1831	£.	£.	£.	£.	£.
Amount collected in 1801 . .	19,330,867	3,049,844	9,857,134	843,976	33,081,821
Duties and taxes imposed between 1801 and 1831 . . .	23,308,271	1,162,051	11,752,170	618,700	36,841,192
	42,639,138	4,211,895	21,609,304	1,462,676	69,923,013
Duties and taxes repealed, &c. between 1814 and 1831 . .	19,660,519	476,353	18,225,249	105,000	38,467,121
Amount to be received in 1831 by computation	22,978,619	3,735,542	3,384,055	1,357,676	31,455,892
Amount actually collected in 1831	32,819,296	6,947,829	4,864,343	1,530,206	46,161,674
Amount received beyond the computed amount	9,840,677	3,212,287	1,480,288	172,530	14,705,782
Amount which should have been received, taking into account the increase of 48½ per cent. of population	34,123,249	5,547,280	5,025,322	2,016,148	46,711,999
Amount deficient in proportion to increased population . .	1,303,953	..	160,979	485,942	550,325
Amount in excess in proportion to increased population . .	..	1,400,549	..	..	..
1841					
Amount collected in 1801 . . .	19,330,867	3,049,844	9,857,134	843,976	33,081,821
Duties and taxes imposed between 1801 and 1841 . . .	25,374,042	1,185,334	12,063,617	618,7 00	39,241,693
	44,704,909	4,235,178	21,920,751	1,462,676	72,323,514
Duties and taxes repealed, &c., between 1814 and 1841 . .	23,078,503	711,067	19,881,717	1,130,000	44,801,287
Amount to be received in 1841 by computation	21,626,406	3,524,111	2,039,034	332,676	27,522,227
Amount actually collected in 1841	35,577,680	7,135,217	4,482,911	455,000	47,650,808
Amount received beyond the computed amount	13,951,274	3,611,106	2,443,877	122,324	20,128,581
Amount which should have been received, taking into account the increase of 65½ per cent. of population	35,755,658	5,826,530	3,371,203	550,024	45,503,415
Amount deficient in proportion to increased population . .	177,978	..	..	95,024	..
Amount in excess in proportion to increased population . .	..	1,308,687	1,111,708	..	2,147,393

It is shown by this statement that although the amount of taxes received in 1811 was greater than the computation made from the duties imposed by the sum of 2,663,320*l.*, it was smaller than the amount which should have been received by 5,663,401*l.*, when we take into the account the increase which had been experienced in the numbers of our population.

Statement of the Progress of the Principal Branches of the Public Revenue at different Periods during the present Century, &c.—continued.

	Customs and Excise.	Stamps.	Taxes.	Post-office.	Total.
1849	£.	£.	£.	£.	£.
Amount collected in 1801 . .	19,380,867	3,049,844	9,857,134	843,976	33,081,821
Duties and taxes imposed between 1801 and 1849 . . .	25,797,068	1,318,221	17,063,617	618,700	44,797,606
	45,127,935	4,368,065	26,920,751	1,462,676	77,879,427
Duties and taxes repealed, &c., between 1814 and 1849 . .	31,935,840	910,868	19,881,717	1,130,000	53,858,425
Amount to be received in 1849 by computation	13,192,095	3,457,197	7,039,084	332,676	24,021,002
Amount actually collected in 1849	34,622,284	6,867,548	9,712,000	832,000	52,033,841
Amount received beyond the computed amount	21,430,189	3,410,351	2,672,975	499,324	28,012,839
Amount which should have been received, taking into account the increase of 77½ per cent. of population	23,415,968	6,136,525	12,494,285	590,500	42,637,278
Amount deficient in proportion to increased population . .	..	..	2,782,276	..	..
Amount in excess in proportion to increased population . .	11,206,316	731,023	..	241,500	9,396,563

In 1821 the amount actually collected was 5,700,345*l.* beyond the computed amount, but 8,810,902*l.* below the sum that should have been received, considering that the population was then greater by 29¼ per cent. than it was in 1801. Between 1821 and 1831 taxes were repealed beyond what were imposed, amounting to 17,321,404*l.*, and the effect of this reduction was immediately seen in the proportionally greater consumption of articles upon which the old or modified duties were continued. The amount received into the Exchequer in 1831 was greater than the amount by computation to the extent of 14,705,782*l.*; and was within 550,325*l.* of the sum which it should have reached, considering the increased number by whom it was contributed. It will further be seen that in 1841, when the public burthens had been still further reduced by 3,933,665*l.*, the amount of duties and taxes received was greater than it should have been by computation, to the extent of 20,128,581*l.*, and greater also by 2,147,393*l.* than the remaining taxes would have yielded at the same rate of consumption by the increased numbers of the people.

Between 1841 and 1849 taxes on consumption were repealed and reduced to the extent of 8,501,225*l.*; but, on the other hand, the income tax, assumed to yield 5,000,000*l.*, has been imposed, showing a reduction of taxation amounting to 3,501,225*l.* The effect of these successive reductions is very significantly indicative of the soundness of the system of reducing taxes upon articles of general consumption, the

revenue from the different sources comprehended in the foregoing table having amounted in 1849 to more than nine millions sterling beyond the computed amount, after making due allowance for the increase of 77½ per cent. to the number of consumers.

At each of the periods embraced in the foregoing calculations, the produce of stamp duties was materially beyond the amount which they were computed to yield, and even beyond that which they should have yielded, taking into consideration the increase of the population. This result is no doubt ascribable to the operation of the probate and legacy duties, which are collected under the management of the Stamp-office. It is in the nature of these duties to be—more than almost any others—unavoidable. If a heavy tax is laid upon wine, or upon male servants, or any similar object, every one has it in his power to avoid the payment, by foregoing the use of the taxed article; but as every one must die, and must leave his property behind him, and as few persons comparatively, like to quit the world without making such a disposition of their possessions as is dictated by a sense of justice, or by feelings of friendship and affection, the cases will be few in number wherein property of even moderate amount, which devolves by succession, is not brought within the operation of these duties. The motive of saving to their families the amount of the legacy duty, which might otherwise influence some persons to omit making any testamentary disposition of their property, is removed by the regulation which subjects property in such cases to a much higher rate of probate duty (generally 50 per cent.) than is chargeable when a will is proved. If we except those duties which operate in the nature of moral restraints—such, for instance, as the duty upon spirituous liquors, when not sufficiently high to excite smuggling—there are not any taxes to the effects of which some social evil may not be ascribed. It has been objected to the probate and legacy duties, that falling inevitably upon capital, they impair the funds applicable to the maintenance of labour, and thereby diminish the future production of the country. "If," says Mr. Ricardo, "a legacy of 1000*l.* be subject to a tax of 100*l.*, the legatee considers his legacy as only 900*l.*, and feels no particular motive to save the 100*l.* duty from his expenditure, and thus the capital of the country is diminished; but if he had really received 1000*l.*, and had been required to pay 100*l.* as a tax on income, on wine, on horses, or on servants, he would probably have diminished, or rather not increased, his expenditure by that sum, and the capital of the country would have been unimpaired."*

* "Principles of Political Economy and Taxation," p. 166, third edition.

Table showing the Amount of Capital upon which Legacy Duty has been paid in Great Britain, in each Year from 1797 *to* 1848.

Years.	AMOUNT OF CAPITAL SUBJECT TO EACH RATE OF DUTY.									Total Capital subject to Duty in each Year.
	1 Per Cent.	2 Per Cent.	2½ Per Cent.	3 Per Cent.	4 Per Cent.	5 Per Cent.	6 Per Cent.	8 Per Cent.	10 Per Cent.	
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
1797	..	733,928	..	41,654	13,798	..	326,799	..	..	1,116,180
1798	..	1,483,981	..	310,122	37,812	..	672,896	..	..	2,504,812
1799	..	1,701,045	..	339,321	39,349	..	859,648	..	..	2,939,365
1800	..	2,320,340	..	354,540	150,323	..	1,296,906	..	..	4,122,111
1801	..	2,133,504	..	376,232	79,054	..	953,140	..	..	3,541,931
1802	..	2,466,562	..	370,168	35,321	..	1,235,461	..	..	4,107,514
1803	..	3,060,555	..	885,221	55,236	..	1,108,642	..	..	5,109,655
1804	..	2,722,036	217,073	551,235	71,701	3,648	1,629,971	105,866	..	5,301,533
1805	259,204	231,865	2,291,931	31,386	375,443	79,205	81,820	1,100,007	119	4,450,984
1806	1,546,395	819,330	2,729,089	12,753	509,897	63,562	67,406	1,282,655	7,941	7,089,031
1807	2,495,031	1,174,972	3,376,813	4,294	699,999	43,392	35,000	1,676,404	9,817	9,515,724
1808	2,798,005	1,017,717	3,988,416	1,227	656,260	73,985	7,017	1,432,800	262,645	10,238,077
1809	5,769,200	36,710	6,576,120	19,976	916,147	145,868	62,078	752,582	2,116,897	16,395,582
1810	5,428,612	15,876	4,853,221	245	1,997,276	87,397	2,097	399,384	1,517,452	14,301,564
1811	5,896,697	15,149	5,714,210	6,228	871,678	123,380	2,005	301,119	1,896,950	14,757,420
1812	7,444,092	759	5,880,767	1,866	929,064	153,452	727	323,822	1,888,033	16,622,585
1813	9,247,680	2,303	7,059,889	97	1,166,099	89,178	3,571	285,491	2,264,197	20,118,508
1814	14,636,364	43,815	8,395,997	50	1,148,904	136,186	542	363,496	2,574,449	27,299,806
1815	14,020,982	43,882	8,431,905	893,147	1,285,830	419,163	5,522	179,238	2,921,321	28,200,994
1816	12,755,147	10,619	888,475	5,871,582	159,491	1,041,516	136,885	306,399	2,903,337	24,073,456
1817	16,149,635	62,381	1,315,695	9,675,030	141,206	1,405,347	398,804	319,105	3,651,074	33,118,281
1818	15,784,470	38,595	858,516	7,971,505	119,424	1,423,989	232,527	241,542	3,508,091	30,178,613
1819	15,713,120	25,264	738,657	7,585,682	54,266	1,001,249	279,627	291,974	3,721,818	29,411,662
1820	16,681,096	12,761	888,113	8,500,862	60,907	1,070,486	213,878	190,869	3,626,297	31,245,274

Table showing the Amount of Capital upon which Legacy Duty has been paid in Great Britain, in each Year from 1797 *to* 1848—continued.

Years.	AMOUNT OF CAPITAL SUBJECT TO EACH RATE OF DUTY.									Total Capital subject to Duty in each Year.
	1 Per Cent.	2 Per Cent.	2½ Per Cent.	3 Per Cent.	4 Per Cent.	5 Per Cent.	6 Per Cent.	8 Per Cent.	10 Per Cent.	
	£.	£.	£.	£.	£.	£.	£.	£.	£.	£.
1821	16,476,804	70,905	729,550	10,040,835	181,086	1,504,057	262,884	169,400	3,587,536	33,023,060
1822	17,039,614	137,054	843,739	9,446,633	108,673	2,567,091	735,338	200,389	3,844,148	34,922,682
1823	15,313,711	231,283	717,100	10,827,150	53,150	1,304,936	278,469	205,786	3,804,085	32,735,674
1824	17,933,434	102,043	441,082	11,357,439	73,192	1,344,241	244,663	197,775	4,158,951	35,852,824
1825	17,751,237	1,363	274,867	9,857,616	130,133	1,931,810	245,969	317,614	4,291,238	34,801,851
1826	15,392,247	..	148,646	10,325,101	19,394	1,135,523	290,856	72,592	3,640,230	31,024,593
1827	16,672,824	..	214,628	10,819,244	12,271	2,014,882	264,191	32,700	4,027,570	34,058,313
1828	19,469,155	..	224,525	12,967,427	29,626	1,715,571	302,077	105,977	4,285,161	39,099,523
1829	20,550,167	..	317,814	11,614,112	38,000	1,725,642	384,416	120,986	4,916,136	39,667,277
1830	21,067,486	..	162,577	12,030,529	17,081	2,726,218	378,229	164,767	4,672,434	31,219,324
1831	21,280,457	..	140,823	11,417,050	32,859	1,685,838	354,334	78,122	4,642,909	39,532,397
1832	23,390,210	..	272,789	13,094,964	24,396	1,364,545	320,380	67,314	4,799,907	43,334,508
1833	22,277,157	..	306,681	12,959,458	9,474	1,756,779	263,532	78,486	4,322,860	41,974,429
1834	22,109,303	..	160,338	12,400,973	36,792	1,558,875	300,872	91,538	4,915,934	41,574,628
1835	22,085,931	..	206,593	11,931,662	16,549	1,642,198	300,998	94,844	4,813,882	41,092,660
1836	22,322,974	..	206,548	12,420,897	24,260	1,786,949	232,835	52,215	4,722,128	41,768,806
1837	22,708,410	..	163,705	13,046,032	53,557	1,755,401	502,479	40,952	4,347,045	42,617,582
1838	23,434,627	..	164,381	14,600,235	21,656	1,650,504	433,178	21,351	4,978,986	45,304,917
1839	21,604,066	..	101,275	13,149,033	37,666	2,638,893	428,590	10,186	4,082,588	42,052,297
1840	21,084,101	..	158,980	12,809,706	13,137	1,730,300	247,602	36,805	4,361,048	40,441,678
1841	21,823,293	..	57,913	12,937,280	27,386	1,440,504	338,509	15,327	4,836,307	41,476,521
1842	23,019,601	..	83,976	12,711,223	17,146	1,568,498	283,065	38,478	5,026,574	42,748,560
1843	23,137,111	..	119,962	13,489,883	93,400	1,595,855	210,552	13,546	4,732,833	43,393,142
1844	24,117,770	..	107,263	13,708,061	11,318	1,496,231	362,472	10,594	4,580,179	44,393,887
1845	24,087,849	..	152,494	14,599,336	9,775	1,802,197	318,359	22,779	4,606,926	45,599,714
1846	22,809,930	..	73,715	13,393,107	13,325	1,574,734	291,299	9,620	4,464,957	42,630,687
1847	22,234,885	..	52,277	14,274,322	4,051	1,842,168	285,155	35,409	4,883,375	43,611,642
1848	24,648,653	..	74,889	13,518,249	8,791	1,824,001	230,244	10,472	4,033,422	44,348,721

It might, on the other hand, be suggested, that, while these duties are accompanied by the advantage which generally attends direct taxation, namely, that a much larger part of their produce than of the produce of taxes indirectly collected finds its way into the public treasury, they are likewise free from the evil effect commonly ascribed to direct taxation, that it engenders irritation, and is regarded as a greater burthen by the public than the payment of duties to a greater amount upon consumable commodities. The legacy and probate duties are in truth not felt as a tax, and it is this circumstance which has exposed them to the objection urged by Mr. Ricardo. Another and apparently a much better-founded objection to them, as levied in this country, might be brought forward, namely, the partiality shown in excluding from their operation that description of property which, from its greater comparative value and security, is called *real* property. This partiality has always been felt as a grievance, and the sense of injustice which it is calculated to awaken is of more moment than any temporary irritation that may accompany the demand for money taxes, which soon passes away, and will be felt only by those persons who have given little or no consideration to the subject.

The foregoing table (pp. 492, 493), containing the amount of capital upon which legacy duty has been paid in Great Britain, in each year from 1797 to 1848 is of importance, as affording some data for approximating towards an estimate of the amount of personal property held within the kingdom, and which, it is thus made evident, has undergone continual and progressive augmentation.

It should be stated, that some part of the capital brought to charge in each year consists of the arrears of former years. These arrears of course vary from year to year, and for some time the tendency would naturally be towards their increase; but it may be assumed that for many years past this has not been the case, and that the arrears received in each year have borne a very near proportion to the amount applicable to the same year which is suffered to go into arrear. It must, too, be borne in mind that there is a very considerable part of the personal property in this kingdom which at the death of its possessors is not subjected to the duty on legacies: the amount thus exempted it is not possible to determine.

The following statement gives the amount of revenue received for legacy duty and probate duty in each year since 1823, distinguishing the sums collected in the different divisions of the kingdom :—

Return of the Total Amount of Revenue received in the United Kingdom in each Year, from 5th January, 1823, to 5th January, 1849, for Stamp Duty on Legacies, Probates, Administrations and Testamentary Inventories.

Year ending 5th January.	England and Wales.	Scotland.	Great Britain.	Ireland.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1824—Legacies . .	930,881 14 6	50,359 19 2	981,241 13 8	16,296 14 5½
Probates, Administrations, and Testamentary Inventories .	782,042 18 0	38,556 10 0	820,599 8 0	29,411 10 10
1825—Legacies . .	988,087 13 0	61,370 10 11	1,049,458 3 11	23,552 16 1
Probates, &c. .	805,222 14 6	46,718 0 0	851,940 14 6	31,112 16 7½
1826—Legacies . .	992,100 13 2	64,805 13 9	1,056,906 6 11	30,258 13 2¾
Probates, &c. .	831,137 7 0	43,374 0 0	874,511 7 0	34,552 0 0
1827—Legacies . .	869,208 10 6	54,114 11 8	923,323 2 2	21,053 12 4
Probates, &c. .	762,459 9 0	52,578 0 0	815,037 9 0	38,102 9 11
1828—Legacies . .	967,377 3 6	65,676 2 9	1,033,053 6 3	35,750 0 9
Probates, &c. .	830,800 6 0	37,989 0 0	868,789 6 0	32,166 10 0
1829—Legacies . .	1,105,250 18 8	65,043 10 1	1,170,294 8 9	27,557 14 5½
Probates, &c. .	833,744 0 0	43,850 10 0	877,594 10 0	41,659 10 0
1830—Legacies . .	1,119,936 12 2	58,773 3 0	1,178,709 15 2	29,325 10 1
Probates, &c. .	835,273 0 0	42,709 0 0	877,982 0 0	46,400 17 10
1831—Legacies . .	1,153,305 19 5	69,954 12 1	1,223,260 11 6	24,628 15 3
Probates, &c. .	857,909 0 0	46,029 10 0	903,938 10 0	37,125 15 3
1832—Legacies . .	1,075,264 9 2	69,194 14 6	1,144,459 3 8	19,353 3 3
Probates, &c. .	833,592 10 0	43,346 10 0	876,939 0 0	41,728 10 0
1833—Legacies . .	1,123,800 18 4	81,252 6 5	1,205,053 4 9	25,974 2 0
Probates, &c. .	803,911 10 0	41,268 0 0	845,179 10 0	39,508 10 0
1834—Legacies . .	1,033,343 4 4	56,674 0 0	1,150,017 4 4	25,463 10 2½
Probates, &c. .	839,041 0 0	46,422 0 0	885,463 0 0	38,543 13 10
1835—Legacies . .	1,140,229 9 2	69,509 11 1	1,209,739 0 3	29,273 3 10½
Probates, &c. .	864,393 10 0	67,455 0 0	931,848 10 0	44,324 10 0
1836—Legacies . .	1,106,364 13 5	72,518 10 3	1,178,883 3 8	27,284 7 10
Probates, &c. .	848,066 11 0	51,544 10 0	899,611 1 0	40,996 0 0
1837—Legacies . .	1,093,340 4 6	78,111 17 10	1,171,452 2 4	26,048 19 5
Probates, &c. .	861,046 18 0	55,873 0 0	916,919 18 0	40,541 10 0
1838—Legacies . .	1,103,303 9 7	76,662 8 1	1,179,965 17 8	29,008 18 4
Probates, &c. .	965,768 15 0	58,233 10 0	1,024,002 5 0	44,254 0 0
1839—Legacies. . .	1,207,704 4 6	74,296 19 2	1,282,001 3 8	26,105 14 0
Probates, &c. .	872,190 10 0	55,775 10 0	927,966 0 0	48,427 0 0
1840—Legacies . .	1,059,319 7 7	101,618 8 10	1,160,937 16 5	27,443 8 1
Probates, &c. .	831,220 10 0	48,741 0 0	879,961 10 0	42,237 10 0
1841—Legacies . .	1,087,111 19 9	89,070 18 8	1,176,182 18 5	26,394 9 4
Probates, &c. .	898,690 2 6	50,162 10 0	948,852 12 6	40,581 0 0
1842—Legacies . .	1,109,317 1 7	69,787 15 7	1,179,104 17 2	30,020 14 7
Probates, &c. .	915,354 19 6	57,955 0 0	973,309 19 6	39,171 14 0
1843—Legacies . .	1,141,471 14 2	87,871 1 2	1,229,342 15 4	65,375 15 6
Probates, &c. .	860,496 13 6	62,342 10 0	922,839 3 6	49,548 0 0

Return of the Total Amount of Revenue for Stamp Duty on Legacies, &c.—continued.

Year ending 5th January.	England and Wales.			Scotland.			Great Britain.			Ireland.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.	£.	s.	d.
1844—Legacies . .	1,114,871	6	6	86,897	18	6	1,201,769	5	0	39,034	17	3
Probates, &c. .	879,367	5	0	53,413	0	0	932,780	5	0	66,184	10	1
1845—Legacies . .	1,124,435	12	0	74,116	15	11	1,198,552	7	11	53,618	12	2
Probates, &c. .	902,219	15	6	64,632	10	0	966,852	5	6	61,031	9	10
1846—Legacies . .	1,178,866	6	9	88,073	15	5	1,266,940	2	2	61,629	18	1
Probates, &c. .	963,322	12	0	66,631	10	0	1,029,954	2	0	65,852	0	0
1847—Legacies . .	1,087,004	18	7	97,198	18	4	1,184,203	16	11	63,350	19	0
Probates, &c. .	915,045	19	6	67,533	0	0	982,578	19	6	72,036	10	0
1848—Legacies . .	1,174,466	4	6	83,995	10	3	1,258,461	14	9	61,061	4	8
Probates, &c. .	978,820	7	0	82,147	0	0	1,060,967	7	0	86,051	10	0
1849—Legacies . .	1,057,691	3	9	93,485	4	6	1,151,176	8	3	72,488	6	4
Probates, &c. .	889,341	14	0	75,796	10	0	965,138	4	0	76,539	0	0

But for the great productiveness of the class of duties just considered, the deficient produce of taxation during the war and for the few years that elapsed after its close, in which we were still suffering from its financial evils, would have been much more apparent. The progress of Customs and Excise duties, as computed at each of the periods embraced in the statement, was as follows:—

Years.	To be Collected by Computation.	Duties, &c., Imposed beyond Amount repealed since 1801.	Sums actually Collected.	Deficient, considering increased Population.	Excessive, considering increased Population.
	£.	£.	£.	£.	£.
1801	..	..	19,330,867	..	..
1811	35,208,467	15,877,600	37,466,568	2,495,042	..
1821	36,878,260	17,547,393	38,765,814	9,083,729	..
1831	22,978,619	3,647,752	32,819,296	1,303,953	..
1841	21,626,406	2,295,539 Repealed beyond Imposed.	35,577,680	177,978	..
1849	13,192,095	6,138,772	34,622,284	..	11,206,316

Pursuing this inquiry into the two remaining branches, we find the following results:—

Years.	To be Collected by Computation.	Duties, &c., Imposed beyond Amount Repealed since 1801.	Duties, &c., Repealed beyond Amount Imposed since 1801.	Sums actually Collected.	Deficient Receipt, considering increased Population.	Excessive Receipt, considering increased Population.
			TAXES.			
	£.	£.	£.	£.	£.	£.
1801	..	..	..	9,857,134	..	..
1811	21,093,134	11,236,000	..	19,819,722	4,120,985	..
1821	6,297,567	..	3,559,567	7,814,690	356,403	..
1831	3,384,055	..	6,473,079	4,864,343	160,979	..
		Repealed beyond Imposed.				
1841	2,039,034	7,818,100	..	4,482,911	..	1,111,708
1849	7,039,034	2,818,100	..	9,712,009	2,782,276	..

Years.	To be Collected by Computation.	Duties, &c., Imposed beyond Amount Repealed since 1801.	Sums actually Collected.	Deficient Receipt, considering increased Population.	Excessive Receipt, considering increased Population.
		Post Office.			
	£.	£.	£.	£.	£.
1801	..	..	843,976	..	..
1811	1,223,976	380,000	1,352,538	36,675	..
1821	1,428,576	584,600	1,383,538	470,040	..
1831	1,357,676	513,000	1,530,206	485,942	..
		Repealed beyond Imposed.			
1841	332,676	511,300	455,000	95,024	..
1849	332,676	511,300	832,000	..	241,500

The revenue derived from the Post-office was in 1836 deficient at the rate of 25 per cent., when examined with reference to the increased population, and compared with its productiveness in 1801; and it will be observed tha less had then been done since the peace in this than in any other branch of the public revenue towards the relief of the people. It is a very common idea, that because the Government performed a service, in return for the tax imposed on the transmission of letters—which cannot be said with equal propriety in regard to any other taxes—that therefore this was a peculiarly fair and fit object for taxation, and that the Government would even have been justified in making any addition to the rates of postage which should have left the cost of conveying a letter below that which it would occasion to the individual himself to convey it. This, however, is a very narrow point of view in which to place the question, and one which leaves altogether out of sight the fact that the Government, assuming to itself a strict monopoly in the business, thereby shut out the open competition of individuals and private associations, by whom the service might be performed upon terms more advantageous for the public.

The whole subject of taxation is one of the highest importance, and yet it is to be feared that the principles by which it should be governed are but partially understood. If even our finance ministers had at any time conceived plans for establishing this subject upon a sounder footing, they would probably have been withheld, by the situation in which this country is placed through the burthen of its obligations to the public creditor, from attempting any great experimental alteration of the existing system. So long as this check to improvement shall operate, it may be hopeless to advocate the adoption of any radical change, but it must, under any circumstances, be of advantage to know the facts that have accompanied the course pursued.

Among the reductions effected from 1831 inclusive, several are of duties which were partial and unjust in their operation, while others were highly impolitic in their tendency, and prevented the extension of

certain branches of industry. Among the former may be mentioned the duty upon coals carried coastwise, which acted in aggravation of the natural disadvantage experienced by the inhabitants of those parts of the country to which fuel was conveyed at a great expense, while the districts in which coal abounds, and where, consequently, its cost is small, were exempt from the tax. Among the duties to which the charge of impolicy is applied was that upon printed cottons, the evil effects of which have been sufficiently explained in a former section. The discriminating duties upon sugar and coffee, the produce of British possessions in India, have also been removed, a measure which could not fail to have the best effects upon our commerce with that part of the world, and a long list of articles, the revenue derived from which was insignificant in amount, but hurtful in its effects upon various branches of the national industry, have either been removed from the tariff or the duties upon them reduced to rates that are merely nominal.

The Custom-house accounts exhibited in 1842 a list of 190 articles upon which duties were levied, independent of such as were not considered worth enumerating, but were described as "all other articles," and the duties upon which, in that year, amounted to 73,351*l.* It is a curious fact, that out of this long array of substances, the net produce of the duties upon which amounted, in 1840, to 23,341,813*l.*, the large proportion of 93⅓ per cent., or 21,872,508*l.*, was collected upon eighteen articles, as shown in the following list. By extending the list so as to comprise all articles which yield annually 10,000*l.* and upwards, it will be found to comprehend, altogether, only forty-five articles, yielding 22,742,601*l.*, or 97½ per cent. of the whole, leaving 145 articles, besides all those unenumerated, and which yielded 599,212*l.*, or 2½ per cent. of the produce.

	£.		£.
Tea	3,472,864	Tallow	186,283
Sugar and Molasses	4,650,016	Silk Manufactured Goods	240,627
Tobacco	3,588,192	Currants	201,577
British Plantation and Foreign Spirits	2,440,942	Sheep's Wool	132,689
Wine	1,791,646	Corn	1,156,639
Timber	1,731,549	Raisins	138,203
Coffee	921,550	Seeds	195,541
Cotton Wool	648,937	Cheese	117,677
Butter	257,576		2,369,236
	£19,503,272		19,503,272
			£21,872,508

	£.
Pepper	70,593
Dye and Hard Woods	67,304
Turpentine	85,194
Oils	87,869
Lemons and Oranges	62,814
Hides	41,442
Furs	20,914
Iron	21,819
Indigo	39,825
Licorice Juice	26,534
Leather Gloves	28,301
Rice	24,610
Bark	20,751
Eggs	34,374
Bristles	29,121
Cork Wood	24,795
Platting for Hats	11,900
	£698,160

	£.
Skins	19,026
Woollen Manufactures	20,615
Glass	23,048
Raw and Waste Silk	17,658
Linen	13,712
Nuts	13,874
Nutmegs	15,040
Brimstone	11,198
Madder and Madder Roots	16,818
Cocoa	20,944
	171,933
	698,160
	870,093
	21,872,508
	£22,742,601*

* Since 1842 the Customs duties have been repealed on cotton wool, sheep's wool, various seeds, turpentine, oils, hides, furs, iron, indigo, bark, bristles, cork wood, skins, woollen manufactures, raw and waste silk, linen, brimstone, madder and madder roots; and the then existing rates have been reduced on sugar and molasses, foreign spirits, timber, butter, tallow, silk manufactures, currants, corn, raisins, and cheese, all included in the above list.

A similar examination of the Custom-house accounts for 1849 shows the following result of these important changes, viz., that upon 12 articles, yielding each more than 100,000*l.*, the revenue has amounted to 95¼ per cent. of the whole; that upon 14 articles, yielding each between 10,000*l.* and 100,000*l.*, the proportion was beyond 2½ per cent., while all other articles, the revenue from each of which was less than 10,000*l.*, yielded less than 2 per cent. of the yearly amount, which, notwithstanding the abolition and reduction of duties since 1840, to the extent of 7,479,685*l.*, or 32·88 per cent., yielded in 1849 within 473,738*l.*, or about 2 per cent. (2·08) of the revenue of 1840.

Twelve articles above 100,000*l.* per annum:—

	£.
Butter	137,844
Coffee	622,835
Corn	561,481
Currants	341,022
Raisins	151,768
Silk Goods	253,447
Colonial and Foreign Spirits	2,816,479
	£4,884,876

	£.	
Sugar and Molasses	4,126,504	
Tea	5,471,420	
Tobacco	4,408,018	
Wine	1,767,516	
Timber	618,455	
	16,391,913	
	4,884,876	
	£21,276,789	or 95·54 per cent.

Fourteen articles between 10,000*l.* and 100,000*l.*:—

	£.
Cheese	96,857
Leather Gloves	44,020
Cocoa	17,675
Eggs	35,646
Embroidery	12,301
Figs	23,831
Flowers, Artificial	13,046
Nutmegs	18,116
Nuts	18,386
Oranges and Lemons	64,679
	£344,557

	£.	
Pepper	85,527	
Rice	16,466	
Clover Seed	41,331	
Tallow	94,619	
	237,943	
	344,557	
	582,500	or 2·62 per cent.
	21,276,789	
	21,859,289	
Articles under 10,000*l.*	409,574	or 1·84 per cent.
	£22,268,863	

Is it possible to conceive any better use that could have been made of a surplus of revenue to the extent of 600,000*l.*, than in repealing all this long array of comparatively unproductive duties, which could but exercise a prejudicial effect upon commerce? Some part of those unproductive duties were imposed for what is called the protection of our manufactures, and some others because of the Excise duties charged upon the like articles of English manufacture. It must surely be bad policy for this country to set the example of charging duties for the protection of domestic industry. Such duties must long ago have become wholly inoperative, through the perfection and economy which have been attained in our manufactories; and if perchance this should not be the case with every minute branch of skilful employment, we ought to have learned, from the experience of former relaxations, that the true and certain way to ensure improvement is to throw down the mounds of protection. If even, against all probability and all experience, some few sickly and exotic branches of employment should leave the country, the sacrifice would be small indeed in comparison with the good to be attained through the practical carrying out of a principle from the universal adoption of which we have so much to gain, but which never will be generally adopted by other countries, so long as their prohibitory or protective duties are countenanced by the provisions—however inoperative—of our tariff.

Where Excise duties are charged upon articles of English production, it is assuredly only justice to the home manufacturer to levy equivalent duties upon the admission of the like articles from foreign countries; but in such cases it were well to inquire whether the sums received afford a sufficient compensation for the evils always attendant upon duties levied in manufactories. The Excise duty on vinegar made in the United Kingdom amounted to no more, in 1836, than 26,313*l.* 1*s.* 1*d.*, and the protecting duty on foreign vinegar to 1,351*l.* 15*s.* 10*d.* The duties being now removed, the manufacturers are allowed to carry on their processes freed from the restrictive rules of revenue officers, and it cannot be doubted that they must always produce vinegar at a price which will ensure to them the supply of the home market, while our trade with France has been increased in a manner which tends to secure for us the good wishes and co-operation of one of the largest and most influential classes of proprietors in that country. The imposition of an Excise duty on vinegar was long justified on the plea of care for the health of the public, which was to be protected by means of the revenue officers, who would prevent the use of any deleterious ingredients in our vinegar-yards, a plea which will scarcely meet with supporters at the present day, since it is known that no *surveillance* will suffice to prevent illegal mixtures, where it is to the interest of manufacturers to make them.

The Government has, since 1840, acted upon the suggestion here thrown out, of repealing many of the comparatively unproductive Customs duties which then swelled the tariff, and we see that the money collected upon the remaining more important articles amply compensates for the amount given up.

The evil effects of high duties, as regards consumption, will be better shown in the section especially treating on that branch of our subject.

It would have been a favourable circumstance for commerce, and consequently for the progress of social improvement, if governments had never imposed any duties upon foreign productions except with the single object of obtaining revenue. Duties of regulation, whatever may be the motives for their adoption, are always in their ultimate effects productive of more evil than good, a fact which has been kept out of view principally because the good, which is frequently very doubtful at best, is enjoyed by individuals through whom it is rendered apparent, while the evil has partly consisted in the absence or rather the prevention of good, and has operated silently but most injuriously upon the welfare of the community at large.

Duties have too frequently been imposed in the spirit of retaliation,—an unwise and unworthy spirit, whether adopted by individuals or by nations, and which was long ago thus ably exposed by Dr. Franklin :—

"Suppose a country, X, with three manufactures, as cloth, silk, iron, supplying three other countries, A, B, C, but is desirous of increasing the vent and raising the price of cloth in favour of her own clothiers.

"In order to do this, she forbids the importation of foreign cloths from A.

"A, in return, forbids silks from X.

"Then the silk-workers complain of a decay of trade.

"And X, to content them, forbids silks from B.

"B, in return, forbids iron-ware from X.

"Then the iron-workers complain of decay.

"And X forbids the importation of iron from C.

"C, in return, forbids cloth from X.

"What is got by all these prohibitions?

"Answer.—All four find their common stock of the enjoyments and conveniences of life diminished."

In levying duties of regulation, governments legislate for the benefit of the producers only of the country, leaving out of sight the interests of the consumers—the universal class—all of whom are thus placed at a disadvantage for the supposed profit of a few among their number. The minister acts, without doubt, in accordance with the feeling of the majority, when, in return for the imposition by a foreign government of any duty which tends to limit the trade of some of the producers in his

own country, he attempts to punish the offending nation by aiming a similar blow at some branch of its industry. The doctrine of "an eye for an eye and a tooth for a tooth" is never more fully nor more fatally acted upon than in commercial legislation, although in the present day, and in our own country, the evil tendency of this anti-social spirit has been demonstrated until it has become hardly possible for any one to hazard an argument in its favour. We may not, in every case, have imposed retaliatory duties precisely in the manner supposed by Dr. Franklin, but our adherence to the principle involved in them is still but too apparent, and especially appears whenever it is proposed to remove or relax any duty upon importation. In these cases, without considering whether such a relaxation will be beneficial to ourselves, and then adopting it accordingly, we have, until the last four years, sought to render the measure subservient to another object, that of producing a corresponding relaxation on the part of the foreign country of production in favour of some branch of our national industry. In this endeavour we have but seldom proved successful. The feeling of commercial rivalry too generally disposes governments to imagine that any proposals to such an effect must have some covert and selfish aim; and, having once rendered our proposed relaxation contingent upon some corresponding proceeding on the part of another country, the refusal of our offers was allowed to bind us to the continuance of a course known and felt to be prejudicial to ourselves. The course which we have recently adopted of taking our measures on these subjects independently of the conduct or policy of other nations, shows greater wisdom and magnanimity, as well as greater confidence in the propriety of our proceedings, and may reasonably give us the full assurance that the course of events must soon lead foreign governments to the willing adoption of principles from which they might have been deterred solely through misapprehension of our motives. The commercial greatness of this country was achieved under the prevalence of a system of restriction and monopoly, favoured by circumstances altogether different from those in which the States of Europe are placed at this time. We have become convinced that a rigid perseverance in that system of exclusiveness, if even it were practicable, would now be no longer profitable, and have been at much pains to produce this conviction in the minds of other people both by means of the press and by negotiations, but we too long left comparatively untried the strongest argument that could be used in favour of our altered views—that afforded by our unreserved adoption of a more liberal policy. The success that accompanied our restrictive regulations has been, not unreasonably perhaps, mistaken for their effect, and it was required from us that we should give to the world a practical illustration of our conversion before we could expect to produce a conviction of our sincerity. The necessity for our adopting such a course

was shown very forcibly during the discussions in the American Congress which preceded its adoption of the tariff of 1824, and which are thus described in the despatch of our minister at Washington to Mr. Canning, dated 30th May in that year:—"The example of Great Britain," says Mr. Addington, "has been adduced as the main support of the arguments used on either side, both parties admitting with equal zeal and admiration the fact of her unrivalled prosperity, but each ascribing it to those grounds which best suited their own line of reasoning. The recent measures adopted by her for the liberalization of her external commercial system, and her emancipation from her ancient system of restriction, are pretty generally ascribed by the advocates of the tariff to a desire to inveigle other nations into an imitation of her example, with the intention, as soon as they shall have embarked sufficiently deeply in her schemes, of turning short round upon them, and resuming to their detriment her old system of protection and prohibition. This scheme, they affirm, Great Britain will, by her superior means, be enabled to execute without hazard to herself." The following passage, taken from Mr. Addington's letter on this occasion, will show how practically mischievous to ourselves are the restrictions which we lay upon the importation of foreign produce:—"I have only to add, that had no restrictions on the importation of foreign grain existed in Europe generally, and especially in Great Britain, I have little doubt that the tariff would never have passed through either House of Congress, since the great agricultural States, and Pennsylvania especially, the main mover of the question, would have been indifferent if not opposed to its enactment."

CHAPTER IV.

WAR EXPENDITURE.

Expenditure in last years of War—Consequent Exhaustion and Distress—Comparative Expenditure in War and Peace—Votes for Army, Navy, Ordnance, 1801 to 1849—Loans and Subsidies to Foreign States—Value of Stores furnished to our Allies in 1814.

In examining the details of the public expenditure, we cannot fail to be struck with the exceedingly great proportion that is absorbed by the expense attending the naval and military force which circumstances have made it necessary for us to maintain. In the last year of the war (1814) the sums expended for the army, navy, and ordnance service, amounted to 71,686,707*l.*, and if to this sum is added the interest of the debt, all of which had been incurred in the prosecution of wars, it will be seen that these branches of expenditure amounted, in that one year, to 101,738,072*l.*, a large part of which was expended in foreign countries, and consequently was abstracted from the capital of the nation. The drain upon our resources which had been thus in operation for a continuous series of years affords alone quite sufficient explanation of the state of exhaustion in which the country was placed during the first few years that followed the restoration of peace, without our being required to ascribe any part of the evil to the cause so vaguely assigned at the time, namely,—the transition from war to peace. In an opposite state of circumstances, where the transition should be from peace to war, it is easy to conceive that such a destruction of property might be encountered as would bring on a considerable derangement of the commercial dealings of the country; but that the return of peace, accompanied as it is by a remission of taxes, and by the opening of various channels that had before been closed against our trade, should produce evils of the nature alluded to, appears little better than a practical contradiction. The country did, indeed, at that time exhibit all the signs of exhaustion, and the single fact of that exhaustion appearing after the restoration of peace was received as sufficient proof that it was caused by the cessation of war. The ceasing of a war demand for various articles consumed by the army, or which were exported to provide payment of our loans and subsidies to foreign countries, may have occasioned loss to the comparatively small number of individuals who had supplied the Government, or had conducted certain branches of the export trade; but those persons, and those departments of business, must have been insignificant when

compared with the great mass of our commercial dealers, who must have been benefited by the change. Had we not been placed, by the lavish expenditure of the latter years of the war, in a state unfavourable for taking advantage of the beneficial alteration in the years that immediately followed the final overthrow of Napoleon, they must have been to us years of the highest prosperity. The prices of those articles generally, of which we were buyers, fell; while, on the contrary, the goods which we had to offer in exchange rose in value. During the ten years between 1805 and 1814 the Government expenditure exceeded 800,000,000*l.*; and although some considerable part of this amount doubtless came back to individuals, and prevented that expenditure from being altogether a loss of capital to the country, the part which found its way to foreign lands, without producing any immediate return, was greater than we could bear without suffering, and was, in all reasonable probability, the cause of the difficulties which bore so hard upon our merchants in the few following years, and before the benign influence of peace had adequately remedied the evil.

The following statement shows the amount expended in each year from 1801 to 1849, under the heads of navy, army, and ordnance expenses:—

Amount Expended from 1801 *to* 1849.

Years.	Navy.	Army.	Ordnance.	Total.
	£.	£.	£.	£.
1801	17,266,135	17,752,947	2,197,186	37,216,268
1802	12,037,162	11,836,407	1,142,839	25,016,408
1803	8,072,878	13,488,080	2,029,799	23,590,757
1804	11,921,551	17,927,422	4,046,054	33,895,027
1805	14,493,843	19,790,181	5,105,426	39,389,450
1806	16,143,628	19,294,982	5,250,376	40,688,986
1807	16,896,661	19,373,101	4,260,079	40,529,841
1808	17,685,390	21,916,198	5,148,852	44,750,440
1809	19,372,061	23,910,222	4,928,674	48,210,957
1810	20,021,512	23,038,479	4,808,745	47,868,736
1811	19,202,679	29,160,530	4,495,816	52,859,025
1812	20,370,339	31,004,701	5,240,537	56,615,577
1813	21,833,522	44,241,285	5,241,628	71,316,435
1814	22,124,437	45,259,377	4,302,893	71,686,707
1815	16,073,870	35,321,544	3,248,759	54,644,173
1816	9,516,325	15,027,898	2,748,841	27,293,064
1817	6,473,063	9,718,066	1,417,648	17,608,777
1818	6,521,714	7,785,979	1,247,197	15,554,890
1819	6,395,553	8,998,037	1,243,639	16,637,229
1820	6,387,799	8,944,814	1,092,292	16,424,905
1821	6,107,280	9,138,845	1,183,727	16,429,852
1822	5,042,642	7,698,974	1,007,821	13,749,437
1823	5,613,151	7,351,992	1,364,328	14,329,471
1824	6,161,818	7,573,026	1,407,308	15,142,152
1825	5,849,119	7,579,631	1,567,087	14,995,837
1826	6,540,634	8,297,361	1,869,606	16,707,601
1827	6,444,727	7,876,682	1,914,403	16,205,812
1828	5,667,970	8,084,043	1,446,972	15,198,985
1829	5,902,339	7,709,372	1,569,150	15,180,861
1830	5,309,606	6,991,163	1,613,908	13,914,677
1831	5,689,859	7,216,293	1,472,944	14,379,096
1832	4,882,835	7,129,874	1,792,317	13,805,026
1833	4,360,235	6,590,062	1,314,806	12,265,103
1834	4,503,909	6,493,925	1,068,223	12,066,057

Amount Expended from 1801 *to* 1849—continued.

Years.	Navy.	Army.	Ordnance.	Total.
	£.	£.	£.	£.
1835	4,099,430	6,406,143	1,151,914	11,657,487
1836	4,205,726	6,473,183	1,434,059	12,112,968
1837	4,750,658	6,521,716	1,444,523	12,716,897
1838	4,520,428	6,815,641	1,384,681	12,720,750
1839	5,490,204	6,542,662	1,951,210	13,984,076
1840	5,597,511	6,890,267	1,631,640	14,119,418
1841	6,489,074	6,418,422	1,815,132	14,722,628
1842	6,640,163	5,987,921	2,174,673	14,802,757
1843	6,606,057	5,997,156	1,910,704	14,513,917
1844	5,858,219	6,178,714	1,924,311	13,961,244
1845	6,809,872	6,744,589	2,109,707	15,664,168
1846	7,803,464	6,699,699	2,361,534	16,864,697
1847	8,013,873	7,540,405	2,947,869	18,502,147
1848	7,922,287	6,647,284	3,076,124	17,645,695
1849	6,942,397	6,549,109	2,332,031	15,823,537

According to this table, the national defences have cost the country during the present century more than 1200 millions of money; 52½ per cent. of which was expended in the 14 years of war, and the remaining 47½ per cent. has been incurred in the 35 years of peace, viz.—

	14 Years, 1801 to 1814.	35 Years, 1815 to 1849.	Total 49 Years, 1801 to 1849.
	£.	£.	£.
Navy	237,441,798	221,163,813	458,605,611
Army	337,993,912	289,940,492	627,934,404
Ordnance . . .	58,198,904	61,241,088	119,439,992
Total . .	633,634,614	572,345,393	1,205,980,007

The average annual expenditure under these three heads was, in the 14 years ending with 1814, 45,259,615*l.*: in the 35 years ending with 1849 it has fallen to 16,352,725*l.* If we confine the comparison of the expenditure for national defence to the six years ending with 1836, it will be found that the average amount in this latter period was 12,714,289*l.*, or less by 72 per cent. than it was previous to 1814. In the 16 years between 1815 and 1830 the average annual expenditure for naval and military purposes was 18,751,108*l.*, compared with which the cost in the six years ending with 1836 exhibits a saving of 32 per cent. In the six years from 1809 to 1814 the expenditure for army, navy, and ordnance services was 348,557,438*l.*, being an annual average of 58,092,906*l.*

One source of public expenditure which bore very hard upon our national resources during the war consisted of the amount of loans and subsidies paid to foreign countries. The following statement shows the expenditure of each year under this head from 1793 to 1814. The aggregate sum thus abstracted from the national resources in those 22 years amounted to 46,289,459*l.*, of which about two-thirds, 30,582,259*l.* were expended in the 10 years that preceded 1814.

Statement of the Amount of Loans and Subsidies paid to Foreign States in each Year from the Commencement of the War in 1793, *to its close in* 1814.

	£.	£.
1793		
Hanover	492,650	
Hesse Cassel	190,623	
Sardinia	150,000	
		833,273
1794		
Prussia	1,226,495	
Sardinia	200,000	
Hesse Cassel	437,105	
Hesse Darmstadt	102,073	
Baden	25,196	
Hanover	559,376	
		2,550,245
1795		
Germany, Imperial Loan (35 Geo. III., c. 93)	4,600,000	
Baden	1,794	
Brunswick	97,722	
Hesse Cassel	317,492	
Hesse Darmstadt	79,605	
Hanover	478,348	
Sardinia	150,000	
		5,724,961
1796		
Hesse Darmstadt	20,076	
Brunswick	12,794	
		32,870
1797		
Hesse Darmstadt	57,015	
Brunswick	7,571	
Germany, Imperial Loan (37 Geo. III., c. 59)	1,620,000	
		1,684,586
1798		
Brunswick	7,000	
Portugal	120,013	
		127,013
1799		
Prince of Orange	20,000	
Hesse Darmstadt	4,812	
Russia	825,000	
		849,812
1800		
Germany	1,066,666	
German Princes	500,000	
Bavaria	501,017	
Russia	545,494	
		2,613,177
1801		
Portugal	200,114	
Sardinia	40,000	
Hesse Cassel	100,000	
Germany	150,000	
German Princes	200,000	
		690,114
1802		
Hesse Cassel	33,451	
Sardinia	52,000	
Russia	200,000	
		285,451
1803		
Hanover	117,628	
Russia	63,000	
Portugal	31,647	
		212,275
1804		
Sweden	20,119	
Hesse Cassel	83,304	
		103,423
1805		
Hanover	..	
		35,341

	£.	£.
1806		
Hanover	76,865	
Hesse Cassel	18,982	
Germany	500,000	
		595,847
1807		
Hanover	19,899	
Russia	614,183	
Hesse Cassel	45,000	
Prussia	180,000	
		859,082
1808		
Spain	1,497,873	
Sweden	1,100,000	
Sicily	300,000	
		2,897,873
1809		
Spain	529,039	
Portugal	600,000	
Sweden	300,000	
Sicily	300,000	
Austria	850,000	
		2,579,039
1810		
Hesse Cassel	45,150	
Spain	402,875	
Portugal	1,237,518	
Sicily	425,000	
		2,110,543
1811		
Spain	220,690	
Portugal	1,832,168	
Sicily	275,000	
Portuguese Sufferers	39,555	
		2,367,413
1812		
Spain	1,000,000	
Portugal	2,167,832	
Portuguese Sufferers	60,445	
Sicily	400,000	
Sweden	278,292	
Morocco	1,952	
		3,908,521
1813		
Spain	1,000,000	
Portugal	1,644,063	
Sicily	600,000	
Sweden	1,320,000	
Russia	657,500	
Russian Sufferers	200,000	
Prussia	650,040	
Prince of Orange	200,000	
Austria	500,000	
Morocco	14,419	
		6,786,022
1814		
Spain	450,000	
Portugal	1,500,000	
Sicily	316,667	
Sweden	800,000	
Russia	2,169,982	
Prussia	1,319,129	
Austria	1,064,882	
France (advanced to Louis XVIII. to enable him to return to France)	200,000	
Hanover	500,000	
Denmark	121,918	
		8,442,578
Total		46,289,459

The direct payments made under the form of loans and subsidies did not form the whole of the contributions made by this country to its allies. Owing to the complicated form in which the public accounts were then rendered to Parliament, it would be a difficult task to unravel the whole of these transactions. It will perhaps afford a sufficient indication of the extent to which our support of the common cause was carried to state the value of the arms, clothing, and other stores that were furnished to our allies in the year 1814, and which were all in addition to the subsidies as detailed in the foregoing statement.

	£.
Austria—Arms and Clothing	410,751
France—Arms sent to the South of France . . .	31,932
Hanover—Arms and Clothing	239,879
Holland—Arms and Clothing	267,759
Oldenburg—Clothing	10,008
Prussia—Arms	11,042
Russia—Provisions and Stores	385,491
Spain—Stores	136,338
Miscellaneous—Arms and Clothing supplied to various Foreign Corps	88,845
	£1,582,045

CHAPTER V.

MISCELLANEOUS ESTIMATES.

Civil List from 1701 to 1849—Crown Revenues—Pensions—Miscellaneous Services—Salaries in Public Departments.

THE remaining branches of public expenditure that call for notice are the Civil List, or the provision made by Parliament for the support and dignity of the Crown, including the salaries and expenses of the various great officers of state, and the annual votes made for miscellaneous services.

The sums disbursed under these two heads in each year of the present century have been as follow:—

Years.	Civil List.	Miscellaneous Services.	Years.	Civil List.	Miscellaneous Services.
	£.	£.		£.	£.
1801	1,136,860	1,745,917	1826	1,057,000	2,566,783
1802	1,140,839	2,920,327	1827	1,057,000	2,863,247
1803	1,129,437	1,972,430	1828	1,057,000	2,012,116
1804	1,810,215	2,221,611	1829	1,057,000	2,485,661
1805	1,181,305	2,141,552	1830	899,660	1,950,109
1806	1,180,923	1,794,382	1831	511,314	2,854,013
1807	1,174,590	1,506,371	1832	510,000	2,396,921
1808	1,173,117	1,576,378	1833	510,000	2,007,159
1809	1,172,800	1,955,971	1834	510,000	2,061,395
1810	1,170,343	1,691,272	1835	510,000	2,144,345
1811	1,185,276	1,959,799	1836	510,000	2,279,310
1812	1,237,370	1,950,031	1837	444,066	2,513,030
1813	1,257,447	1,867,593	1838	385,621	2,792,540
1814	1,236,210	2,480,677	1839	386,546	2,862,470
1815	1,235,879	3,867,592	1840	387,743	2,523,625
1816	1,216,270	2,438,459	1841	389,022	2,927,660
1817	1,235,692	1,839,999	1842	390,120	2,959,757
1818	1,235,692	2,634,916	1843	390,307	3,279,363
1819	1,190,692	1,833,791	1844	391,284	3,080,175
1820	1,071,758	2,488,781	1845	392,165	2,726,147
1821	1,057,000	2,125,991	1846	393,051	3,264,339
1822	1,057,000	2,105,797	1847	393,982	3,561,067
1823	1,057,000	1,953,366	1848	395,245	4,092,090
1824	1,057,000	1,449,148	1849	396,600	3,911,231
1825	1,057,000	2,216,081			

The history of the Civil List first dates from the accession of Queen Anne, in 1701, when, in consideration of an annuity of 700,000*l.* settled upon the Queen for her life, the proceeds of the Crown lands and of certain Excise duties which had been granted by Parliament to Charles II. and his successors, were surrendered to the public. The sum here mentioned was applied to defray the expenses of the Queen and her household, to pay the salaries of her ambassadors and other representatives in

foreign countries, and to provide for the administration of justice at home, as well as some other minor charges which had previously been defrayed by the Crown out of the revenues that were relinquished. This arrangement ceased at the death of the Queen, when the hereditary revenues reverted to the Crown; but the precedent made by Queen Anne, as here described, has since been followed at the accession of each succeeding monarch. At the beginning of the reign of George III., the Civil List was fixed at 800,000*l.* per annum, to which sum additions were made from time to time, partly on the ground of the general enhancement of prices caused by the depreciation of the currency: the sums paid on this account from the consolidated fund in each year from 1801 to the accession of George IV., in 1820, may be known from the foregoing table. By the arrangement made between George IV. and the Parliament, in 1820, some part of the charge upon the Civil List was transferred to the consolidated fund, and the payments on the former account were fixed at 850,000*l.* per annum. On the accession of William IV. a fresh distribution of these charges was made, expenses which had no immediate connexion with the royal dignity were transferred to the consolidated fund, and the Civil List was voted under five different classes, amounting in the aggregate to 510,000*l.* per annum, as follows:—

		£.
1st Class.	—For the King's Privy Purse, 60,000*l.*; for the Queen, 50,000*l.*	110,000
2nd	„ Salaries of the Royal Household. . . .	130,300
3rd	„ Expenses of the Household	171,500
4th	„ Special and Home Secret Services . . .	23,200
5th	„ Pensions	75,000
		£510,000

On the accession of Queen Victoria, a Committee of the House of Commons was appointed to inquire into the subject of this branch of the public expenditure; and in compliance with the report and recommendation of that Committee, an Act was passed, in which the principle adopted in 1830 has been preserved, and the Civil List has been fixed at 385,000*l.* per annum, with a power to the Crown to grant pensions to an amount not exceeding 1200*l.* in any one year. The heads under which this arrangement is comprised are as follow:—

		£.
1st Class.	—For the Queen's Privy Purse	60,000
2nd	„ Salaries of Queen's Household and Retired Allowances	131,260
3rd	„ Expenses of the Royal Household . . .	172,500
4th	„ Royal Bounty, Alms, and Special Services.	13,200
5th	„ Pensions to the extent of 1,200*l.* per annum	
6th	„ Unappropriated Moneys	8,040
		£385,000

It would appear from a return that was laid upon the table of the House of Lords in December, 1837, that during the three reigns of George the Third, George the Fourth, and William the Fourth, the public gained considerably by the arrangements that have been here described. In the first of these reigns, which embraced a period of 59½ years, the sum paid to the Civil List, including 3,395,062*l.* granted at various times for the discharge of debts contracted on that account, amounted to 56,975,451*l.*, while the amount of the King's hereditary and temporary revenues given up to the public realized 75,138,695*l.*, showing a gain to the public of 18,163,244*l.* In the reign of George IV., which occupied about 10½ years, the payments to the Crown were 8,847,987*l.*, and the receipts by the public 19,732,732*l.*, showing a saving of 10,884,745*l.*; and in the seven years which comprised the reign of William IV., the payments were 3,561,593*l.*, while the receipts were 21,913,388*l.*, so that the public appears to have gained by the arrangement with the late king 18,351,745*l.* The saving effected during the reign of the three kings amounted, according to this return, to 37,399,784*l.* The increasing receipts from the ceded revenues have, of late years, made the bargain more favourable to the public than formerly, but it must be kept in mind that many charges once borne by the Crown and now defrayed by the public are not included in this statement.

The Crown is entitled to certain revenues as Duke of Lancaster, and (while there is no heir apparent) as Duke of Cornwall also; which revenues have not hitherto been relinquished to the public.

The difference observable between the amount of the Civil List granted at the beginning of his reign to William IV., and that established in 1837, was occasioned, first, by the absence, at that time, of a consort, and next, by the new arrangement made regarding pensions. At the time the Civil List for the Queen was under discussion, it had been determined to examine, by means of a Committee of the House of Commons, into the propriety of continuing the various pensions thereunto paid out of the grant of 75,000*l.* per annum. As it could not be known what the result of this inquiry might be, no provision could properly be made by Parliament for meeting the charge for such pensions as it might be thought proper to continue, and the point was reserved to be dealt with by the legislature, as might be thought fit at a future stage of the proceeding, when the needful provision would have to be made by the House of Commons. The arrangement of limiting the amount of original pensions that may be granted in any one year to 1200*l.*, can hardly fail to prove a measure of economy on the part of the public, when compared with the arrangement established at the accession of William IV. On the supposition of the continuance of all existing pensions for the lives of the individuals by whom they are

enjoyed, the average annual reduction from mortality would not be less than 3000*l.* per annum, if even the ages of the recipients were so low, on the average, as 34 years, which is certainly much under the actual average. In the case supposed, there would therefore be a progressive saving from year to year of 1800*l.*, until the death of the existing pensioners, when the amount to be annually provided by Parliament would not exceed 30,000*l.* in place of 75,000*l.* paid under the former arrangement. In proportion as the average ages of the pensioners exceed 34 years, the progressive saving will be greater, and the ultimate charge upon the public less than here stated.

The sums included in the foregoing table under the head of Miscellaneous Services comprise a great variety of objects, and necessarily differ materially from year to year. The nature of these services will be sufficiently indicated by the following abstract, which is taken from the Finance Accounts for 1849 :—

	£.	s.	d.
Civil Contingencies	106,000	0	0
Public Works and Buildings, including New Houses of Parliament	479,158	1	11
Salaries and Expenses of Public Departments	941,163	13	5
Law and Justice	1,170,068	2	2
Education, Science, and Art	371,407	16	3
Colonial and Consular Services	405,859	7	5
Superannuations and Retired Allowances	194,448	6	10
Special and Temporary Objects	243,126	0	5
	£3,911,231	8	5

The charge for salaries provided for in the grants for Miscellaneous Services forms only a small part of the yearly expenses incurred for that purpose. Office-bearers employed under the different Boards for the collection of the Revenue are paid out of the receipts of the departments respectively, their salaries being considered, as in fact they are, a part of the charges of collection, and the net proceeds of the revenue being all that is paid into the Exchequer. It cannot make any real difference to the public whether this system shall be continued, or whether, as some persons have recommended, the gross amount of the collection is paid into the Exchequer, and the charges of the respective Departments are issued from that office. It has been supposed that by the latter mode a more direct and efficient check would be obtained over the expenditure; but this could hardly be the case, if, as may be presumed, the payments must be made upon the orders of the various Boards of Commissioners, who are at present responsible for the faithful and economical disposal of the funds that come under their charge. The various items that now form deductions from the gross receipts before they reach the Exchequer are all given in detail in the public accounts, and are as much subject to examination, and as open to animadversion, as they could be made upon any other plan.

No statement has been made public of the amount paid for salaries in the various departments of the public service during the years that elapsed prior to 1815. During the war, that branch of expenditure had gone on at a constantly-increasing rate of progression, and in the year just mentioned had reached the sum of 3,763,100*l.* It will be seen from the following statement that in the 20 years that followed, reductions to the amount of 26 per cent. were made. These reductions would have been greater, but for the annual allowances that it has been considered just to make to persons whose offices have been abolished, and who entered upon the public service upon the faith of such a provision being made.

The charge for salaries in the various public departments of the kingdom in each year, from 1815 to 1835, was as follows:—

Years.	£.	Years.	£.
1815	3,763,100	1826	3,285,022
1816	3,745,478	1827	3,248,719
1817	3,633,981	1828	3,204,398
1818	3,601,720	1829	3,185,334
1819	3,587,122	1830	3,120,034
1820	3,564,594	1831	3,055,512
1821	3,562,528	1832	2,934,144
1822	3,453,211	1833	2,853,503
1823	3,368,218	1834	2,828,562
1824	3,281,693	1835	2,786,278
1825	3,260,370		

The number of persons employed in the various departments (exclusive of Army, Navy, &c.), and the amount of salaries paid in each department in the years 1815 and 1835, are shown in the following table, from which it appears that the reduction since the war has been 3787 persons and 976,822*l.*, being about 14 per cent. in the number, and 26 per cent. in the amount. It appears from a statement presented to Parliament in 1828, but which exhibits several omissions, and cannot be received with much confidence, that the reduction in the twelve years from 1815 to 1827 embraced 1686 persons, and 413,532*l.*, or 6 per cent. in number, and 11 per cent. in amount: according to which statement, there were reductions made in the eight years from 1827 to 1835 amounting to 2101 persons and 563,290*l.* of annual charge, or 8 per cent. in number, and nearly 17 per cent. in amount. The reductions between 1815 and 1835 would have appeared much more considerable, but for the addition of 3913 persons forming the preventive coast-guard under the Commissioners of the Customs, and whose salaries, amounting to 259,916*l.* per annum, had before been paid out of the Navy Estimates.

Statement showing the Amount of Salaries paid in each Department of the Public Service in each of the Years 1815 *and* 1835.

DEPARTMENTS.	ESTABLISHMENT.				REDUCTIONS.		ADDITIONS.	
	1815		1835					
	Number of Persons.	Amount of Salaries.	Number of Persons.	Amount of Salaries.	Number of Persons.	Amount of Salaries.	Number of Persons.	Amount of Salaries.
		£.		£.		£.		£.
Treasury, including Commissariat and Solicitor	155	83,767	92	56,346	63	27,421	..	..
Exchequer Offices	90	73,528	14	7,005	56	58,994	..	..
Paymaster of Civil Services	..	..	20	7,529				
Privy Council Office	21	12,830	18	9,958	3	2,872	..	..
" " for Trade	20	5,423	29	11,331	..	..	9	5,908
Secretary of State, Home Department	31	22,177	30	19,678	1	2,499	..	..
" " Foreign "	33	23,337	39	21,584	..	1,753	6	..
" " Colonial "	25	19,985	31	20,487	..	..	6	502
India Board	33	22,966	38	21,300	..	1,666	5	..
Privy Seal Office	1	3,000	1	2,000	..	1,000	..	..
Alien Office	19	3,710	7	1,161	12	2,549	..	..
Register of Colonial Slaves' Office	..	..	4	1,210	..	..	4	1,210
State Paper Office	6	1,083	6	1,573	..	..	..	490
Commander-in-Chief's Office	29	8,078	21	7,167	8	911	..	..
Adjutant-General's Office	29	3,968	22	3,870	7	98	..	..
Quartermaster-General's Office	21	3,024	19	2,210	2	814	..	..
War Office, including office for Military Boards	215	61,544	84	32,042	131	29,502	..	..
Judge-Advocate-General's Office	8	4,630	7	3,460	1	1,170	..	..
Army Medical Board Office	14	6,372	5	2,850	9	3,522	..	..
Chaplain-General's Office	3	963	2	276	1	687	..	..
Army Pay Office	81	22,295	51	17,614	30	4,681	..	..
Ordnance Department	1,907	281,302	996	159,128	911	122,174	..	..
Chelsea Hospital, including Secretary's Agents, and Treasurer's Office	91	14,337	157	23,999	..	..	66	9,662
Royal Military College	144	20,565	80	..	64	20,565	..	..
" " Asylum	78	3,581	67	3,699	11	..	..	118
Admiralty and Naval Departments	2,146	531,460	821	227,971	1,325	303,489	..	..
Customs Department, including Coast Guard	10,477	971,162	11,602	940,762	..	30,400	1,125	..
Excise Department	7,926	874,757	6,072	722,456	1,854	152,301	..	..

Stamps and Taxes Department	1,063	210,276	660	106,347	403	103,929	..	..
Post Office	1,456	115,974	1,774	124,439	..	..	318	8,465
Mint Office	28	10,313	30	10,110	..	203	2	..
Audit Office, and other offices transferred to that department	282	93,128	130	39,050	152	54,078	..	..
National Debt Office	8	2,978	31	8,717	..	..	23	5,739
Exchequer Bill Office	13	3,800	11	3,610	2	190	..	..
Woods, Forests, Land Revenue, and Public Works' Office	79	18,594	60	18,445	19	149	..	..
Stationery Office	45	5,779	34	5,070	11	709	..	..
Alienation Office	8	760	7	800	1	..	..	40
Lottery Office	93	10,382	..	..	93	10,382	..	..
Exchequer and other Departments in SCOTLAND	325	123,261	296	94,782	29	28,479	..	..
IRELAND.								
Chief Secretary's Office	71	20,602	38	14,536	33	6,066	..	..
" " in London	12	2,770	8	2,410	4	360	..	..
Privy Council Office	7	2,575	7	2,575	..	..	..	..
Vice-Treasurer's Office, late Irish Treasury, &c.	57	28,769	13	4,964	44	23,805	..	..
Teller's Office, Exchequer	6	2,026	5	1,680	1	346	..	..
Privy Seal Office	2	1,384	2	100	..	1,284	..	..
Office of Public Works	62	10,328	19	5,096	43	5,232	..	..
" Lieutenant-General commanding	6	2,014	6	1,066	..	948	..	..
Army Medical Office	7	1,934	3	1,044	4	890	..	..
Quartermaster-General's Office	8	1,122	6	664	2	458	..	..
Deputy Judge-Advocate-General's Office	2	969	1	597	1	372	..	..
Provost-Marshal-General's Office	3	223	1	168	2	55	..	..
Adjutant-General's Office	16	1,192	9	1,018	7	174	..	..
Commissariat Department	40	7,449	12	2,248	28	5,201	..	..
Royal Hospital, Kilmainham	62	4,516	54	3,136	8	1,380	..	..
Board of Charitable Donations	1	138	1	184	..	..	..	46
" Education	..	..	25	4,756	..	..	25	4,756
	27,365	3,763,100	23,578	2,786,278	5,376	1,013,758	1,589	36,936
Abate Additions					1,589	36,936		
Total Reduction as compared with 1815					3,787	976,822		

CHAPTER VI.

COUNTY AND PAROCHIAL EXPENDITURE.

Local Taxation—Poor Rates—County Rates—Amount levied in 1844—Objects to which the money was applied, compared with 1792.

THE expenditure of the central government of this country forms by far the largest part, but not the whole, of the contributions levied from individuals for purposes beyond their own immediate and personal wants or gratifications. We are now in a great measure freed from the burthen of partial taxation; such local rates as exist are levied for objects peculiar to the locality in which such contributions are raised. Some few of such partial taxes still remain, but only in circumstances which admit of this plea in justification, that their produce is applied to purposes peculiarly advantageous to the spot in which they are levied. Of this kind is the duty upon coals charged in the port of London, in order to pay the cost of providing suitable approaches to London Bridge. It is by no means clear to everybody that the object mentioned is of that strictly local advantage which justifies the imposing of a partial tax for its accomplishment; and it has been urged that it is for the general convenience that roads and bridges which facilitate the approach to the metropolis should be constructed and maintained at the general charge of the country.

For the most part taxes levied for local purposes in England are voted in parochial assemblies, by those who are to pay them, or by their delegates or representatives, and of these taxes by far the largest part consists of an assessment for the support of the indigent poor. The following statement exhibits the sums raised for this purpose, and their distribution at various periods, from the middle of the eighteenth century to the year ending 25th March, 1813, and thereafter, for every year until 25th March, 1849.

Provision has been made by various statutes for defraying certain miscellaneous public expenses by means of a local tax imposed by the justices of the peace in their several counties, and which tax bears the name of a County Rate.

Years.	Total Sum Assessed and Levied.	Payments thereout for other purposes than the Relief of the Poor.	Sums Expended in Law, Removals, &c.	Sums Expended for the Relief of the Poor.	Total Sums Expended.
	£.	£.	£.	£.	£.
Average of 1748-49-50	730,135	40,164	No Account	689,971	No Account.
1776	1,720,316	137,655	35,071	1,521,732	1,694,458
Average of 1783-84-85	2,167,748	163,511	91,996	1 912,241	2,167,148
1803	5,348,204	1,034,105	190,072	4,077,891	5,302,070
1812—13	8,640,842	1,861,073	325,107	6,656,105	8,865,838
1813—14	8,388,974	1,881,565	332,966	6,294,584	8,511,863
1814—15	7,457,676	1,763,020	324,664	5,418,845	7,508,853
1815—16	6,934,425	1,212,918	..	5,724,506	6,937,424
1816—17	8,128,418	1,210,200	..	6,918,217	8,128,417
1817—18	9,320,440	1,430,292	..	7,890,148	9,320,440
1818—19	8,932,185	1,300,534	..	7,531,650	8,832,184
1819—20	8,719,655	1,342,658	..	7,329,594	8,672,252
1820—21	8,411,893	1,375,868	..	6,958,445	8,334,313
1821—22	7,761,441	1,336,533	..	6,358,703	7,695,236
1822—23	6,898,153	1,148,230	..	5,773,096	6,921,326
1823—24	6,833,630	1,137,598	..	5,736,898	6,874,496
1824—25	6,972,323	1,212,199	..	5,786,989	6,999,188
1825—26	6,965,051	1,246,145	..	5,928,501	7,174,646
1826—27	7,784,352	1,362,377	..	6,441,088	7,803,465
1827—28	7,715,055	1,372,433	..	6,298,000	7,670,433
1828—29	7,642,171	1,280,328	..	6,332,410	7,612,738
1829—30	8,161,281	1,322,239	..	6,829,042	8,151,281
1830—31	8,279,217	1,540,198	..	6,798,889	8,339,087
1831—32	8,622,920	1,646,493	..	7,036,968	8,683,461
1832—33	8,606,501	1,694,670	254,412	6,790,800	8,739,882
1833—34	8,338,078	1,713,489	258,604	6,317,255	8,289,348
1834—35	7,373,807	1,641,073	202,527	5,526,418	7,370,018
1835—36	6,354,538	1,523,058	172,431	4,717,630	6,413,119
1836—37	5,294,566	1,241,246	126,951	4,044,741	5,412,938
1837—38	5,186,389	1,251,113	93,982	4,123,604	5,468,699
1838—39	5,613,939	1,244,256	63,412	4,421,713	5,829,381
1839—40	6,014,605	1,423,441	67,020	4,576,965	6,067,426
1840—41	6,351,828	1,662,301	69,942	4,760,929	6,493,172
1841—42	6,552,890	1,732,222	68,051	4,911,498	6,711,771
1842—43	7,085,595	1,742,364	84,730	5,208,027	7,035,121
1843—44	6,847,205	1,818,720	105,304	4,976,033	6,900,117
1844—45	6,791,006	1,722,302	95,397	5,039,703	6,857,402
1845—46	6,800,623	1,709,083	83,298	4,954,204	6,746,585
1846—47	6,964,825	1,719,485	76,385	5,298,787	7,094,657
1847—48	7,817,429	1,793,283	73,438	6,180,764	8,047,485
1848—49	7,674,146	1,847,402	70,252	5,792,963	7,710,617

The principal objects for which provision is thus made are, the repairing of bridges, building and repairing gaols, houses of correction, shire-halls, and courts of justice; the construction and support of lunatic asylums; the expense of criminal prosecutions; the conveyance of prisoners to and from places of confinement before and after trial; the apprehending of vagrants; the expenses of coroners, of militia, of county elections, and various minor sources of expense.

The amount of county rates received at different periods in the present century by the treasurers of counties in England and Wales has been as follows :—

Year ending 25th March.	£.	Year ending 25th March.	£.	Year ending 25th March.	£.
1801	326,130	1818	646,466	1834	723,741
1802	317,977	1819	658,456	1835	671,082
1803	286,055	1820	698,868	1836	705,248
1804	291,389	1821	672,054	1837	638,047
1805	325,098	1822	615,298	1838	683,865
1806	338,685	1823	677,446	1839	741,407
1807	366,564	1824	568,536	1840	855,552
1808	350,128	1825	673,333	1841	1,026,035
1809	393,322	1826	736,099	1842	1,003,651
1810	436,447	1827	731,772	1843	1,051,878
1811	497,027	1828	723,197	1844	1,111,236
1812	502,223	1829	691,266	1845	1,046,412
1813	548,174	1830	708,007	1846	1,067,692
1814	573,504	1831	754,996	1847	1,076,954
1815	541,890	1832	761,901	1848	1,153,624
1816	557,963	1833	759,354	1849	1,381,132
1817	566,529				

The amounts received and disbursed by the county treasurers in the years ending Michaelmas, 1843 and 1844, the latest for which the accounts have been given, were as follow :—

RECEIPTS.	1843	1844
	£.	£.
Balance in hands of Treasurers	97,275	126,809
County Rate	741,612	699,327
Allowance from the Treasury	111,968	103,035
Police Rate	144,400	163,265
Other receipts	137,263	100,632
	£1,232,518	£1,193,068

DISBURSEMENTS.	£.	£.
Balance due to Treasurers	6,465	6,314
Expenses of Gaols	160,713	163,169
„ Houses of Correction	140,907	131,048
„ Prosecution of Prisoners	208,904	185,058
Conveyance of Prisoners to Gaol	25,943	22,196
„ Transports	10,191	6,825
Vagrants	7,794	7,811
Maintenance of Pauper Lunatics	20,044	21,754
Shire Hall, Judges' Lodgings, &c.	34,925	26,939
County Bridges	57,291	58,206
Clerks of the Peace	37,837	35,966
Treasurers' Salaries	7,393	7,276
Coroners' Bills	49,390	51,843
Inspectors of Weights and Measures	12,106	12,149
Incidental Expenses	109,457	107,704
Expenses of Rural Police	159,769	164,129
Other Expenses	62,576	62,675
	£1,111,255	£1,071,062

No means are afforded for comparing the rate of expenditure under various heads with the payments at the beginning of the present

century. Such an account has been given for 1792, and is as follows:—

	£.
Bridges	42,237
Gaols, Houses of Correction, &c.	92,319
Maintenance of Prisoners	45,785
Vagrants	16,807
Prosecutions	34,218
Lieutenancy and Militia	16,976
Constables	659
Professional Charges	8,990
Coroners	8,153
Salaries	16,315
Incidental Expenses	17,456
Miscellaneous	15,890
	£315,805

It will be seen from the foregoing abstracts that the expenses occasioned by criminal prosecutions and by the maintenance of prisoners form a considerable item in the annual disbursements. This was, in 1835, a subject of complaint on the part of the country gentlemen, who justly contended that it was unfair to subject them to the cost of repressing crimes committed against society at large. It will be seen, by comparing the abstracts above, for the years 1792 and 1844, that the increase in this branch of county expenditure has been out of all proportion beyond the increase of the population; and there is much reason for supposing that a great part of the excess has been occasioned, not so much by any increase in the number of prosecutions, as by the want of an efficient control on the part of the magistrates. In support of this opinion, it may be stated, on the authority of a report laid before Parliament, that offences prosecuted in the borough courts in Leeds, where the proceedings are properly managed, have not on the average exceeded 4*l.* 9*s.* 6*d.* for each prosecution; while the charge for prosecuting the like offences before the assizes at York, have amounted on the average of cases, to 50*l.* The complaint of the landowners went to the principle, as already explained, and, appearing to be well founded, a vote of the House of Commons authorized the issue of 110,000*l.* from the Consolidated Fund to defray the charges that might be so incurred within the year. This sum, owing probably to the greater vigilance induced by the Parliamentary inquiries, was found to exceed by more than 40,000*l.* the amount required, and the vote was accordingly reduced in the following year.

As regards another and an analogous branch of expenditure—the repair of churches, and certain expenses attending the celebration of public worship therein—no means exist for ascertaining the progressive amount of money levied in various parishes.

SECTION V.—CONSUMPTION.

CHAPTER I.

Small Number of Persons in England who live without gainful Employment—Consequent great Means for Enjoyment and for Accumulation of Capital—Unequal Division of the Products of Labour—Growing Improvement in this respect—Increase of Luxuries and Elegancies, and consequent general Refinement of Manners—Improvement in Dwellings of Middle Classes seldom extended to the Houses of Artisans and Labourers—Exception in this respect of Sheffield.

In every community the power of consuming must be measured and controlled by the power of producing. The extraordinary degree of producing power which exists in this kingdom has been shown in the second Section of this work. Not only is the proportion of persons in the community who pass their lives in active industry, labouring with their hands or their heads, greater in this than in almost every other well-peopled country in Europe, but the amount of skilled labour performed in a given time by any given number of our countrymen is commonly greater than that accomplished by the like number of any other people in Europe. To this circumstance it is in great part owing, that, with a higher rate of daily wages paid for fewer hours of toil than are required in other countries, our manufacturers have been able, under otherwise adverse circumstances, to maintain the superiority over their rivals Many of those rivals, both in France and in Germany, have contrived to possess themselves of our best machines, notwithstanding the legal prohibition which, until lately, existed to their exportation; but having hitherto been unable to embue their workmen with the degree of energy and skill by which the English artisan is distinguished, are in general unable to compete with us in any but the commonest kinds of fabrics.

The proportion of persons in the United Kingdom who pass their time without applying to any gainful occupation is quite inconsiderable. Of 5,812,276 males, twenty years of age and upwards, living at the

time of the census of 1831, there were said to be engaged in some calling or profession 5,466,182, as under:—

In Agriculture	2,470,111
In Trade and Manufactures	1,888,768
In Labour, not Agricultural	698,588
In Domestic Service	132,811
As Bankers, Clergymen, Professional Men, &c. .	275,904

thus leaving unemployed only 346,094, or rather less than six per cent. of the whole, which, assuming that the proportionate number at each age continued the same in 1831 that it was found to be in 1821, is not quite a quarter per cent. beyond the number living in 1831 who were 70 years of age and upwards. It is probable that this number of unemployed persons is somewhat understated, and that noblemen and gentlemen residing upon their estates, many of whom intrust to agents everything connected with business employment, are reckoned among the number of those engaged in agriculture; but if this be the case, it cannot very greatly alter the calculation.

At the last census (1841) the discrepancy already noticed between the returns of occupations in Great Britain and in Ireland—the age selected in the latter division of the kingdom for recording employments being 15, while 20 years were retained for that record in Great Britain—prevents any comparison of the numbers at the two periods for the whole kingdom; but it will be seen on referring to the Table, page 58, in this volume, that the number of unemployed adult males in Great Britain, in 1841, was only 274,482. At that time the number of male persons, 70 years old and upwards, living in Great Britain, was 236,037, the difference between the two numbers forming only eight persons in each 1000 adult males under 70 who could then be designated as idle, if we assume that on attaining the age of *three-score and ten* there was a cessation of employment.

Where so large a proportion of persons apply themselves to productive labour with so many natural and acquired advantages as are offered in this country, the sum of human enjoyment, so far as the same can be said to depend upon the possession of the necessaries, conveniences, and luxuries of life, must needs be very great, since the whole of what they produce beyond what is wanted to replace the capital expended in that production, must be either consumed by them or added to the capital of the country, and in this way will be made to increase the power of production in future years.

In the division among the people of the produce of the national industry, a great amount of inequality is no doubt observable,—an amount greater, perhaps, than is consistent with the degree of perfection to which human institutions may at some time be brought: but there is reason to believe that, great as this inequality now is, it was in former times much greater; and that hereafter, when the accumulation of

capital will probably still further than at present exceed the increase of population, the division must necessarily become more equal; the rich and powerful will in such case still have made additions to the sum of their enjoyments, but the labourers will have added in a still greater degree to their means of comfortable subsistence. Whether, in any country, and at any given time, the accumulation of capital proceeds in a quicker ratio than the increase of population, is a question hardly capable of being decided by direct proof. It has been argued, by high authorities, that there is under all circumstances a tendency in population to press upon the means of subsistence. If, however, we look back to the condition of the mass of the people as it existed in this country, even so recently as the beginning of the present century, and then look around us at the indications of greater comfort and respectability that meet us on every side, it is hardly possible to doubt that here, in England at least, the elements of social improvement have been successfully at work, and that they have been and are producing an increased amount of comfort to the great bulk of the people. This improvement is by no means confined to those who are called, by a somewhat arbitrary distinction, the working classes, but is enjoyed in some degree or other by tradesmen, shopkeepers, farmers,—in short, by every class of men whose personal and family comforts admitted of material increase. Higher in the scale of society, the same cause has been productive of increase of luxury, of increased encouragement to science, literature, and the fine arts, and of additions to the elegancies of life, the indulgence in which has acted upon the condition of the less-favoured classes directly by means of the additional employment it has caused, and indirectly also by reason of the general refinement in manners which has thus been brought about.

In nothing is the improvement here mentioned more apparent than in the condition of the dwellings of the middle classes. As one instance, it is not necessary to go back much beyond half a century to arrive at the time when prosperous shopkeepers in the leading thoroughfares of London were without that now necessary article of furniture, a carpet, in their ordinary sitting-rooms: luxury in this particular seldom went further with them than a well-scoured floor strewn with sand, and the furniture of the apartments was by no means inconsistent with this primitive, and, as we should now say, comfortless state of things. In the same houses we now see, not carpets merely, but many articles of furniture which were formerly in use only among the nobility and gentry: the walls are covered with paintings or engravings, and the apartments contain evidences that some among the inmates cultivate one or more of those elegant accomplishments which tend so delightfully to refine the minds of individuals, and to sweeten the intercourse of families.

The improvement here noticed has not hitherto been extended in an

equal degree to the dwellings of the working classes. These, especially in large towns, are still for the most part comfortless, and even unwholesome, ill furnished and ill kept, betraying a lamentable want of self-respect in their inmates, with a degree of recklessness that speaks unfavourably for their moral progress. The inquiries that have of late years been made on the subject by the London and the Manchester Statistical Societies, and by the Central Society of Education, have brought to light an amount of debasement which is truly appalling, while they have served to indicate the means through which the evil may be remedied, without even calling for any great pecuniary sacrifice on the part of those who may apply themselves to the good work. It is worthy of remark, that this comfortless condition of the dwellings of the poor is not seen in all localities. In some places where no other appearances in the state of society would seem to indicate it, there is to be found an extraordinary degree of respectability in this particular. The town of Sheffield, for instance, contains a large manufacturing population, by no means remarkable for orderly conduct. The town itself is ill built and dirty, beyond the usual condition of English towns; but it is the custom for each family among the labouring population to occupy a separate dwelling, the rooms in which are furnished in a very comfortable manner, the floors are carpeted, and the tables are usually of mahogany; chests of drawers of the same material are commonly seen, and so in most cases is a clock also, the possession of which article of furniture has often been pointed out as the certain indication of prosperity and of personal repectability on the part of the working man. It would be difficult to account for this favourable peculiarity in the town of Sheffield, which, in this respect, offers a strong contrast to other manufacturing towns in the same county; but it is greatly to be desired that this peculiarity should be made to cease through the growing desire of other communities to surround themselves with the like comfortable emblems of respectability. In large towns, whose populations are in a great measure made up of workmen and their families, such, for instance, as Leeds or Manchester, the progress of improvement in this direction must probably be left to the operation of general causes, and will follow rather than lead to the enlightenment of the people; but in the seats of our principal manufactures there are to be found many villages and small towns, the greater part of whose inhabitants are engaged in the service of one or a few master manufacturers, and whose condition, both physical and moral, may be greatly influenced by their employers. A very little encouragement, if regard be had to the feelings of those who are to be benefited, and especially if their honest pride of independence be not offended, will suffice to induce habits of cleanliness, order, and propriety in their families, and may lead to a degree of refinement that will wean them from purely sensual indulgences, which, although they

may not be criminal in themselves, are too often the incentives to criminal courses. Happily we are not without examples of the good that may be thus effected by judicious kindness, which is amply repaid to those by whom it is exercised, not only through the delightful consciousness of good done to others, but even in a wordly point of view by the habits of steadiness and greater industry begotten in the workmen.*

If these examples were extensively followed, we should have little cause to fear lest the increasing numbers of the people should bring with them increasing cares to the working classes. Labour is the agent which in every country provides all the necessaries and conveniences of life which are consumed, and "according as this produce, or what is purchased with it, bears a greater or smaller proportion to the number of those who are to consume it, so will the nation be better or worse supplied with all the necessaries and conveniences for which it has occasion."†

The fact, the existence of which is shown in various ways in these pages, that the people at large have of late years, notwithstanding some occasional checks, obtained in England a continually increasing command of the necessaries of life, is proof sufficient that the amount of their individual industry must be greater, or, what is the same thing in effect, must be more skilfully applied than it formerly was when their numbers were not so great, and when, according to the popular (but ill-founded) belief, it must have been easier than it now is for each individual to provide for his comfortable subsistence.

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* At the meeting of the British Association that was held at Liverpool in September, 1837, this subject was brought forward for discussion at one of the sections, and attention was particularly directed to the establishment of the late Mr. Thomas Ashton, of Hyde, whose consideration for the physical and moral well-being of his workpeople was cited as an example well deserving imitation in other localities. This circumstance is mentioned here not so much with the view of paying a tribute to the memory of a gentleman, the good qualities of whose heart are already well known and highly appreciated, but in order to adduce in support of the opinion above expressed the testimony of Mr. Ashton, who endeavoured to repudiate all claim to merit on that ground, by declaring that for every shilling of money he had laid out in providing comfortable and respectable dwellings for his workpeople, and furnishing them with conveniences, he received a very liberal interest.

† Smith's "Wealth of Nations." Introductory chapter.

CHAPTER II.

Houses. Proportion to Inhabitants in England—In Middlesex—In Scotland—In Edinburgh—In Ireland—In Dublin—Rated Value of Houses at different Periods—Proportion of different Classes, and Annual Rental—Number of Inhabited Houses, and progressive Increase greater than Increase of Population. Bricks. Number made in England and Scotland.

Houses.—The number of houses in a district will usually bear the same relative proportion to the number of its inhabitants at one period that it has borne at another. In different countries, and even in different divisions of the same country, we find a wide disagreement between the average numbers of persons inhabiting each house; but custom does not in this respect undergo much, if any, variation in the same locality, even in a long course of years, so that a statement of the number of inhabited houses existing at different periods in any locality would be found very nearly in agreement with the progressive numbers of the people.

The average number of inhabitants to a house in England and in the county of Middlesex, respectively, at each of the periods of enumeration in the present century, will sufficiently illustrate this fact.

Average number of inhabitants to a house—

Years.	In England.	In Middlesex.
1801	5·67	7·25
1811	5·68	7·29
1821	5·76	7·48
1831	5·62	7·52
1841	5·44	7·59

The number of inhabited houses in Scotland and Ireland formed no part of the inquiry made under the Population Acts before 1821; but in that year, and in 1831 and 1841, the numbers were ascertained, and the average number of their inhabitants in all Scotland, in the county of Edinburgh, and in all Ireland, in those years, and in the city of Dublin, at the two earlier periods, were as follows:—

Average number of inhabitants to a house—

Years.	In Scotland.	In Edinburgh.	In Ireland.	In Dublin.
1821	6·13	10·04	5·95	12·43
1831	6·42	11·11	6·21	12·72
1841	5·04*	5·94*	6·54	..

By knowing the number merely of houses in the kingdom at different periods, we do not obtain any test of the condition and social progress of the inhabitants; but we may arrive at some correct conclusion in these respects by knowing their estimated value, as we may thence infer the amount of conveniences which they offer to their inmates. The records of the Tax Office are not available for an earlier period than the year 1812; but at various periods commencing with that year they afford some means for judging how far the general improvement has, in this particular, kept pace with the onward march of the community in England and Scotland.

The tax on inhabited houses, rated in three classes, viz., from 10*l.* to 20*l.*; from 20*l.* to 40*l.*; and above 40*l.* of annual value, in the years 1812, 1821, 1831, and 1833 respectively, was charged upon the following numbers:—

	1812	1821	1831	1833
From 10*l.* to 20*l.* Rental .	146,209	172,708	215,233	227,604
„ 20*l.* to 40*l.* „ .	94,403	108,878	131,676	130,445
Above 40*l.* Rental . . .	56,438	69,379	83,708	84,433
	297,050	350,965	430,617	442,482

The centesimal proportions of the different classes at these various periods were:—

	1812	1821	1831	1833
From 10*l.* to 20*l.* Rental .	49·22	49·21	49·98	51·44
„ 20*l.* to 40*l.* „ .	31·78	31·02	30·58	29·48
Above 40*l.* Rental . . .	19·	19·77	19·44	19·08
	100·00	100·00	100·00	100·00

The annual rental of these houses, as rated for the duty, was—

Years.	£.	Per Cent.	Per Cent.
1812	8,495,802	..	..
1821	9,414,430	increase 10·81	or 0·90 per annum.
1831	12,351,573	„ 31·20	„ 3·12 „
1833	12,603,912	„ 2·04	„ 1·02 „

The number of exemptions from this duty has always been very considerable. Farm-houses, and cottages inhabited by labouring men, form part of those exemptions. Previous to 1825 the tax applied to houses of no greater annual value than 5*l.*, but since that year the

* The enumerators in Scotland, in 1841, are understood to have returned as so many houses the number of separate apartments or flats inhabited by distinct families; while, on former occasions, the number of distinct houses was returned. This will account for the great discrepancy observable in the returns of that year as compared with those of 1821 and 1831.

lowest description charged has been of 10*l.* rental. The number of houses between 5*l.* and 10*l.* annual value, charged with duty in each of the years 1812 and 1821 respectively, was 127,009 and 130,859. The total number of inhabited houses in England in 1801 and 1811, and in England, Scotland, and Ireland, in 1821, 1831, and 1841, were—

Years.	England.	Scotland.	Ireland.
1801	1,467,870	..	..
1811	1,678,106	..	..
1821	1,951,973	341,474	1,142,602
1831	2,326,022	369,393	1,249,816
1841	2,753,295	503,357*	1,328,839

Assuming that the population increased between 1811 and 1812 at the mean rate of progression shown between 1811 and 1821, and that the increase between 1831 and 1833 was after the same rate as that experienced between 1831 and 1841, the numbers living in Great Britain in the above four years respectively were—

1812	12,776,286						
1821	14,391,631	increase	12·63	per cent.,	or	1·40	per annum.
1831	16,262,301	„	13·00	„		1·30	„
1833	16,716,308	„	2·79	„		1·40	„

The increase in the number of houses chargeable to the duty, viz., from 10*l.* rental upwards, was—

Between	1812	and	1821	18·15	per cent., or 2·01	per annum.
„	1821	„	1831	22·69	„ 2·27	„
„	1831	„	1833	2·75	„ 1·37	„

On the houses rated above 40*l.* the increase has been—

Between	1812	and	1821	22·93	per cent., or 2·55	per annum.
„	1821	„	1831	20·65	„ 2·06	„
„	1831	„	1833	0·86	„ 0·43	„

The increase between 1812 and 1833 was—

In the population	30·83 per cent.
In houses rated at 10*l.* to 40*l.* . . .	48·96 „
„ upwards of 40*l.* .	49·60 „

The house duty was repealed from 5th April, 1834.

It appears, from the foregoing numbers and proportions, that while no advance has been made in the relative value of dwellings chargeable with duty, the increase in the number of those dwellings has been greater than the increase in the population; which circumstance is sufficiently explained by the fact already adduced, that the number of persons engaged in rural occupations, and by whom the exemptions from the inhabited house duty are enjoyed, has not increased in the same ratio as the increase experienced by other classes, by which means the proportionate number of persons inhabiting rated dwellings is greater now than formerly; and as it has necessarily happened that the great bulk of the persons forming that increase are supplied by the working

* See Note, page 526.

classes, it argues strongly in favour of the onward progress of society, that the proportions among the different classes of houses has been preserved in the manner already stated.

Bricks.—The quantity of bricks made in Great Britain, while they were subject to duty, was registered by the Excise; but no duty having been charged upon them in Ireland, we have no account of the quantity made there. The number made in England and Scotland respectively, at different periods within the present century, has been as follows:—

Years.	England.	Scotland.	Total.
1802	698,596,954	15,291,789	713,888,743
1811	950,547,173	18,765,582	969,312,755
1821	899,178,510	14,052,590	913,231,100
1831	1,125,462,408	27,586,173	1,153,048,581
1838	1,427,472,263	27,411,874	1,454,884,137
1839	1,569,020,952	42,267,633	1,611,288,585
1840	1,677,811,134	47,821,599	1,725,632,733
1841	1,423,794,267	38,463,308	1,462,257,575
1842	1,271,872,112	31,942,619	1,303,814,731
1843	1,158,857,167	25,531,499	1,184,388,666
1844	1,420,730,745	37,129,535	1,457,860,280
1845	1,820,716,337	57,321,332	1,878,037,669
1846	2,039,656,766	62,686,558	2,102,343,324
1847	2,193,829,491	66,097,395	2,259,926,886
1848	1,461,035,726	34,795,545	1,495,831,271
1849	1,462,767,154	41,193,952	1,503,961,106

The great increase observable in some of the later years was no doubt owing in great part to the increase of manufactories, and very recently to the construction of railroads and other public works, which have been carried on to a far greater extent proportionally in England than in Scotland. It will be seen that the annual use of bricks in Great Britain has more than doubled within the present century, and that by far the greater part of this increase has occurred since 1821, the difference between that year and 1847 having been more than 1,200,000,000, or above 130 per cent. The duty on bricks was repealed in 1850.

CHAPTER III.

MALE SERVANTS. Number kept in different Years—Expenditure thus occasioned—Number of Female Servants, and Expense of maintaining them, in 1831—Number of Servants kept in Ireland, and Cost of their Maintenance. CARRIAGES. Number kept in different Years—Rate of Increase—Number let for Hire—Expenditure under these Heads. HORSES. Number charged with Duty, in 1838, 1840, and 1849—For Pleasure—For Trade—Number exempt from Duty. GOLD AND SILVER PLATE. Quantities made during the War, and since—Improvement in Quality of Plated Goods a probable Cause of the lessened Use of Silver Articles.

Servants.—THE number of persons assessed for keeping male domestic servants in 1812, 1821, 1831, 1841, and 1849, respectively, was—

	1812	1821	1831	1841	1849
Persons keeping 1 servant . . .	37,339	39,673	50,938	55,720	54,625
" 2 servants . . .	13,032	13,258	16,125	17,565	18,322
" 3 " . . .	10,038	9,231	10,257	11,719	12,258
" 4 " . . .	6,776	6,604	6,735	6,945	7,662
" 5 " . . .	4,625	4,390	4,164	4,602	4,734
" 6 " . . .	3,174	2,904	3,060	3,158	3,588
" 7 " . . .	2,310	1,960	2,004	2,343	2,356
" 8 " . . .	1,528	1,528	1,721	1,595	1,635
" 9 " . . .	1,287	1,053	988	1,007	1,132
" 10 " . .	980	700	738	826	807
" 11 and upwards .	4,944	4,456	5,078	5,369	5,424
	86,093	85,757	101,808	110,849	112,543

The most striking fact exhibited by these numbers is the actual decrease in the number assessed in 1821 as compared with the number in 1812. Had the number kept pace with the increase in population, it would have amounted in 1821 to 96,966, or 13 per cent. beyond the actual number. This deficiency there is every reason to attribute to the exhaustion consequent upon the latter years of the war, and the increased expense of living during the greater part of that interval, which much discouraged the keeping up of large establishments. During the following decennary period, the country had recovered in a great degree from the state of things just described; and we find that the number of male servants was increased by 16,051, or 18·71 per cent. In 1849, the last year for which the returns have been made, the number was further increased by 10,735,—which is less than one-half what it should have been to keep pace with the increase of population. In 1835 the number exceeded that in 1836 by 2160 servants, and exhibited a progress since 1831 exactly commensurate with that of the population.

For the falling off between 1835 and 1836 it is not possible to assign any reasonable cause.

It is probably below the actua. cost if we estimate the expense attending the keeping of male servants, including wages, liveries, and maintenance, at 60*l.* per annum for each. Colonel Sykes, in an estimate presented by him to the Statistical Society of London, and published in its transactions, assumes that the expense is 70*l.* per annum for each. At the more moderate rate of 60*l.*, the annual amount thus expended in Great Britain in the different years already given was :—

Years.	£.	Years.	£.
1812	5,165,580	1839	6,598,680
1821	5,145,420	1841	6,650,940
1831	6,108,480	1849	6,752,580
1836	6,343,140		

If to the expenditure of 1841, we add the probable expense of maintaining 902,048 female servants—the number then ascertained to be kept in Great Britain, averaging the expense of each for board and wages at 35*l.* per annum, it will appear that the expenses incurred for domestic servants in that year was altogether 38,222,620*l.*

The tax on servants does not apply to Ireland, where, probably for that reason, the proportion to the whole population of male servants kept is much greater than in Great Britain, as appeared at the census of 1831. The number of domestic servants then found in Ireland was—

Males	98,742
Females	253,155

If, in consideration of the more moderate expense of living in that part of the kingdom, we assume that it costs 45*l.* to keep a man-servant and 25*l.* to keep a woman-servant, we have a further yearly expenditure under this head of 10,772,165*l.*, making the charge throughout the United Kingdom amount to 48,994,785*l.*

Carriages.—The number of carriages with four wheels assessed in the under-mentioned years was—

	1812	1821	1831	1841	1849
Persons keeping 1 carriage . .	12,866	13,897	18,480	18,642	15,714
„ 2 carriages . .	2,792	2,834	4,976	7,215	7,305
„ 3 „ . .	657	588	983	1,411	1,421
„ 4 „ . .	180	160	236	421	506
„ 5 „ . .	60	55	126	186	252
„ 6 „ . .	18	6	36	108	108
„ 7 „ . .	7	7	21	63	49
„ 8 „ . .	16	8	8	18	26
„ 9 and upwards .	..	..	20	270	66
	16,596	17,555	24,886	28,334	25,447

The increased use of carriages with four wheels between 1812 and 1821 was no more than 959, or 5·77 per cent., being less than one-half

the proportionate increase of population: the number was increased in the next ten years by 7331, or 41¼ per cent., being nearly three times as great as the increased numbers of the people. Between 1831 and 1841 there has been a further increase of 3448 carriages, or at the rate of nearly 14 per cent., while the increase to the population was 11¼ per cent. In the 20 years between 1821 and 1841 the use of carriages with four wheels has increased more than 60 per cent., or in a ratio double that of the increase of the people.

The increased use of carriages with two wheels has been even more striking than this, as appears from the following figures:—

Years.	Number of Two-wheel Carriages.	Years.	Number of Two-wheel Carriages.
1812	27,286	1839	44,379
1821	30,743	1841	41,663
1831	49,331	1849	28,474

The increase between 1812 and 1821 was 12·67 per cent.
„ „ 1821 „ 1831 „ 60·46 „

During the next ten years there was a diminution of 15 per cent., which still leaves an increase from 1812 of 52·69 per cent. The more recent decrease in the number of both two and four wheeled carriages is, in all probability, partly the result of improvements in hired carriages, the number of which in 1831 was 20,196, and in 1836 had increased to 33,070, or 63¾ per cent.; and in 1849 to 41,621, or 106·08 per cent. The great facilities afforded by railways for travelling may also have contributed to this result. The number of carriages let for hire in 1812 was 5544, and in 1821 only 5480.

The progress made in these several years in the use of all these descriptions of carriages has been as follows:—

	1812	1821	1831	1836	1840	1849
Carriages with four wheels .	16,596	17,555	24,886	26,861	28,334	25,447
„ „ two „ .	27,286	30,743	49,331	45,242	41,663	28,474
„ let for hire . . .	5,544	5,480	20,196	31,937	34,525	41,621
	49,426	53,778	94,413	104,040	104,522	95,542

It is assumed by Colonel Sykes, in the estimate already noticed, that the expense attending every four-wheeled private carriage is about 250*l.* per annum, in which sum he includes the wages and maintenance of servants, which he has put down at 70*l.* for each; but as there must be at least two servants kept—a coachman and a groom or footman for each carriage—this would reduce the charge to 110*l.* per annum for the wear and tear of the carriage and harness and the keep of the horses, with various accessory charges, which sum is probably much within the average charge. It may be fairly assumed that, taking the four-wheeled and two-wheeled carriages together, the average expense is not below 100*l.* per annum for each; and if we add to these the same rate for the earnings of each carriage let for hire, we shall have an annual

expenditure under this head in Great Britain in each of the above years as follows :—

Years.	£.	Years.	£.
1812	4,942,600	1836	10,404,000
1821	5,377,800	1841	10,452,200
1831	9,441,300	1849	9,554,200

Horses.—Owing to the many alterations that have been made since 1814 in the duties chargeable in respect of horses kept for pleasure, it is hardly possible to compare the numbers so kept at different periods. As regards horses kept for some purposes of business, the duty has been repealed, either wholly or partially; while in other classes of employment a great number have, upon some pretext or other, been exempted from payment of duty. As respects most of the classes thus favoured, the numbers were not distinguished at the time when the duties were chargeable, and it is therefore not possible to ascertain from the returns of the Tax Office the number of horses kept for pleasure or recreation at different periods, nor the degree in which their use has been influenced by the imposition, or modification, or removal of the tax, and there is not any other channel of information on the subject open to us.

The number of horses used for riding or drawing carriages charged with duty in 1838, 1840, and 1849, was—

	1838	1840	1849
Persons keeping 1 horse	89,940	89,319	76,721
„ 2 horses	33,333	34,671	33,825
„ 3 „	11,707	11,770	11,822
„ 4 „	6,168	6,356	6,332
„ 5 „	3,111	3,276	2,982
„ 6 „	2,153	2,245	2,234
„ 7 to 8	2,392	2,280	2,085
„ 9 „	595	613	799
„ 10 to 12	1,267	1,253	1,136
„ 13 to 16	782	853	727
„ 17 „	107	49	92
„ 18 „	108	162	147
„ 19 „	89	96	95
„ 20 and upwards	1,221	1,343	1,377
	152,973	154,286	140,374

There were, besides the above, duties charged on—

	1838	1840	1849
Horses let to hire	2,201	2,179	1,819
Race-horses	1,119	1,095	1,476
Horses for riding, or drawing carriages not exceeding 13 hands high	22,456	22,594	21,586
Horses ridden by farmers' bailiffs	69	55	37
„ butchers	4,389	4,419	4,261
Draught horses used in trade	125,813	132,342	147,766
„ mules	344	381	348
	156,391	163,965	177,293

Exemptions from duty on horses were claimed in the same years as follows:—

	1838	1840	1849
Kept by farmers renting less than 50*l.* a-year	48,635	49,709	62,688
Used solely for husbandry	387,211	392,749	337,479
Subject to duty in other forms; viz., as employed in stage-coaches, hackney-coaches, and post-chaises	27,100	24,710	24,356
Persons serving in volunteer corps	13,164	11,877	13,463
Exempted on other grounds	59,375	60,849	59,942
	535,485	539,894	497,928

Gold and Silver Plate.—It might be thought that the quantity of gold and silver plate manufactured for use at different periods would afford a good measure of the prosperity of the country; and, judging from the facts already brought forward, as well as from the observation of what is passing around us, we might have supposed that during the last quarter of a century there must have been a marked increase in this employment of the precious metals in this kingdom. It is certain that during that interval the use of many utensils made of silver has been adopted by a much more numerous class of society than before; a remark which will be sufficiently corroborated by the fact that within that period it has first been customary to find silver forks at the tables in the generality of taverns. Before the termination of the war in 1815, this article of domestic convenience was uniformly made of steel, except among families in decidedly easy circumstances, or in the first-rate taverns; whereas at present there is hardly a family to be found above the rank of artisans, whose table is not furnished with forks made of the more costly material. It will be matter for surprise, under these circumstances, to find that the quantity of gold and silver plate made and retained for home use within the kingdom was greater in weight during the eight years that preceded the peace than it was during the like period from 1830 to 1837 inclusive. During the first period, viz., 1807 to 1814, the quantities so retained for use were—of gold plate 50,750 ounces, and of silver plate 8,290,157 ounces; and in the eight years, from 1830 to 1837, the quantities were—of gold 48,432 ounces, and of silver 7,378,651 ounces. This falling off is the more surprising, because of the unprecedentedly high prices of bullion during a great part of the first of these two periods, whereby the difference in the money value was rendered much greater than the difference as here stated in the weight.

Some suggestions have been offered with the view of accounting for a circumstance seemingly so much at variance with every other indication of increased means and enjoyments on the part of the people: they are stated here only as suggestions, however, and are not relied on as affording a sufficient or satisfactory solution of the difficulty.

First, it may be questioned whether the fact of the depreciation of paper, while it enhanced the money price of articles made of gold and silver, did not also occasion many persons, as a measure of prudent precaution, so to invest a part of their wealth, and thereby to secure the possession of a certain and tangible property of immediately convertible value. It may be objected that persons so acting were prudent overmuch, and, judging from the course which events have since taken, such an opinion appears well founded; but any one who can recall to his recollection the dismal aspect then offered by the political horizon—when every power in Europe was leagued against us, and the necessary expenditure of the country was carried forward upon a scale which it would have been altogether impossible to have continued for even a few years longer—will hesitate before he pronounces such a precaution unwise. Even when the ambitious designs of Napoleon had detached from him and converted into enemies the allies who had pursued with him the object of destroying the power and resources of England, there came no intermission of efforts and sacrifices on our part; but, on the contrary, every ally that we gained in the field helped still further to exhaust our financial means. Let us suppose that the battle of Waterloo had been lost, or even that it had been less decisive in its results, could the public expenditure have been continued on anything like the scale of preceding years, while at the same time faith had been kept with the public creditor? Under such circumstances he would have been looked upon as a man of forethought and wisdom who should have provided himself with a species of convertible property that was independent of the stability of public credit; and as it is well known that many persons did at that time entertain very gloomy forebodings as to the future condition of this country, it is not unreasonable to suppose that some would be led to the precautionary course that has been here suggested.

There was at the same time another circumstance in operation altogether opposite to, but not incompatible with, what has been stated, and which probably led to the same desire of investing money in the purchase of gold and silver plate. The gains of persons engaged, either as owners or tenants, in the cultivation of the soil, had been out of all proportion great, and that for a length of time, which gave an appearance of permanency to their prosperity. It has been already stated in how great a degree the rent of land had advanced during the progress of the war, at the same time that the worldly condition and habits of the occupiers had undergone the most marked improvement. There are no classes of men so remarkable in this country as its nobility and country gentlemen for the importance which they attach to the possession and transmission of family plate; and with respect to the farmers, the alteration in their circumstances and character must have caused a great demand on their part for such luxuries. In those days it scarcely required the passing

away of a generation in order to see in farmers' dwellings, on the same estates, spoons of wood or of horn give place to others of silver. It must further be considered that luxuries of this class are not of a perishable nature; that, except for the indulgence of ostentation, they are provided in the same family once for all, and we must not therefore expect that any sudden increase in their quantity will lead to further and equal additions when that immediate demand shall be satisfied. The improvement that has been made in the manufacture of plated wares has had a further influence in diminishing the sale of articles subject to the plate duty, although it may have led, and in all probability has led, to the increased consumption of the precious metals. Except in very wealthy families, it is now usual to see many articles, such as candlesticks, plated, where formerly they were seen of silver, or, if the expense of such was too great, of brass.

The combination of these various causes may probably be thought sufficient to account for the fact exhibited by the following table of the comparative decline experienced in this branch of consumption. The years 1824 and 1825 are well remembered as years of great commercial excitement and apparent prosperity, and it is curious to observe the degree in which that excitement acted in promoting the desire of possessing gold and silver utensils. The increased quantity retained for home use in the year 1825, as compared with 1823, was equal to 29 per cent. on gold, and 50 per cent. on silver plate; the difference in favour of 1825, as compared with 1824, was 10 per cent. on gold and 24 per cent. on silver plate.

Number of Ounces of Gold and Silver Plate upon which Duty was Paid, and for which Drawback was Allowed, showing the Quantity retained for Home Use, in each Year, from 5th January, 1800, to 5th January, 1850.

Year ended 5th January	Duty paid on		Drawback allowed on		Retained for Home Use.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
1801	5,251	902,966	77	142,705	5,174	760,261
1802	4,619	925,882	19	114,323	4,600	811,559
1803	5,137	986,381	66	126,878	5,071	859,503
1804	5,445	1,048,869	10	99,295	5,435	949,574
1805	4,854	902,788	21	114,829	4,833	787,959
1806	5,408	1,056,693	9	122,082	5,399	934,611
1807	5,372	1,084,525	43	121,608	5,329	962,917
1808	6,056	1,141,749	20	131,850	6,036	1,009,899
1809	6,189	1,159,412	18	90,516	6,171	1,068,896
1810	6,382	1,242,208	53	71,116	6,329	1,171,092
1811	7,435	1,341,024	102	86,896	7,333	1,254,128
1812	6,212	1,154,738	34	92,245	6,178	1,062,493
1813	5,891	990,223	34	50,334	5,857	939,889
1814	6,115	917,697	19	52,234	6,096	865,463
1815	6,779	974,245	29	55,948	6,750	918,297
1816	7,492	1,054,658	495	108,174	6,997	946,484
1817	7,002	910,002	836	85,142	6,166	824,860
1818	5,827	1,080,549	2,001	106,417	3,826	974,132
1819	5,881	1,293,586	2,507	98,777	3,374	1,194,709
1820	6,037	1,230,104	1,607	116,507	4,430	1,113,597

Number of Ounces of Gold and Silver Plate upon which Duty was Paid, and for which Drawback was Allowed, &c.—continued.

Year ended 5th January.	Duty paid on		Drawback allowed on		Retained for Home Use.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
	ozs.	ozs.	ozs.	ozs.	ozs.	ozs.
1821	6,651	1,081,310	3,735	114,224	2,916	967,086
1822	5,434	1,022,771	1,436	120,600	3,998	902,161
1823	6,997	1,027,722	1,370	64,783	5,627	962,939
1824	6,516	1,073,244	20	97,016	6,496	976,228
1825	7,662	1,258,658	38	70,482	7,624	1,188,176
1826	8,486	1,585,254	81	112,017	8,405	1,473,237
1827	7,108	1,247,880	..	71,493	7,108	1,176,387
1828	7,266	1,207,887	10	60,910	7,256	1,146,977
1829	7,106	1,361,332	2	86,157	7,104	1,275,175
1830	6,441	1,271,322	12	109,907	6,429	1,161,415
1831	5,716	1,076,976	6	84,444	5,710	992,532
1832	4,574	826,052	9	100,127	4,565	725,925
1833	5,189	914,096	15	79,659	5,174	834,437
1834	5,434	879,117	2	72,005	5,432	807,112
1835	6,116	1,050,232	..	102,251	6,116	947,981
1836	6,678	1,071,026	16	110,247	6,662	960,779
1837	7,966	1,272,920	..	164,064	7,966	1,108,856
1838	6,811	1,178,568	4	177,539	6,807	1,001,029
1839	6,784	1,195,483	21	161,458	6,763	1,034,025
1840	6,875	1,270,330	7	155,923	6,868	1,114,467
1841	6,992	1,209,266	7	179,904	6,985	1,029,362
1842	6,580	1,149,070	5	160,495	6,575	988,575
1843	6,305	1,026,046	4	171,574	6,301	854,472
1844	6,415	911,220	2	122,689	6,413	788,531
1845	7,242	1,025,412	8	170,987	7,234	854,425
1846	8,036	1,158,050	16	181,759	8,020	976,291
1847	8,335	1,188,736	18	167,513	8,317	1,021,223
1848	7,629	1,049,268	5	161,483	7,624	887,785
1849	6,810	756,388	..	109,136	6,810	647,252
1850	7,373	735,865	3	76,759	7,370	659,106

CHAPTER IV.

FOOD. Want of Information concerning the Quantity consumed of chief Articles of Human Subsistence—Evils resulting from this Ignorance—Means employed for ascertaining the Produce of the Soil in Belgium. SUGAR. Quantity consumed at various periods in England and Ireland, and Revenue thereon—Consumption easily affected by Price—Diminished Shipments from British Colonies—Necessity for enlarging the Market of Supply—Cost to the Nation of the protecting Duty, and consequent Loss to the Revenue. COFFEE. Quantities consumed—Effect of Reduction of Duties—Consumption checked by Protective Duties—Contrivance for lessening their Amount. TEA. Quantities consumed—Past History of the Tea Trade, and Effect of Duties upon Consumption. MALT. Consumption at various Periods—Checked by Duties and by Monopoly of Home-growers of Barley. SPIRITS. Consumption of Home-made Spirits—Temperance Movements in Ireland—Foreign and Colonial Spirits consumed—Excessive Duties and their Consequences. WINE. Quantities consumed—Rates of Duty—Consumption of Wine in France. BEER. Quantity consumed, and Produce of Duty.

THERE are no means provided by which the consumption of the prime necessaries of life in this country can be traced at different periods. It is only with respect to those few articles of native production which have been subjected to the payment of duties that any provision has ever been made for ascertaining their quantity; and as the chief articles of food and clothing, when of such production, have never been directly taxed in England, we have always been ignorant in this respect regarding the quantities produced.

The want of this information has been found greatly inconvenient, both by statesmen and by writers on subjects of social economy, the latter of whom have frequently had recourse to the expedient of computations founded on insufficient data, and which have therefore given an unsatisfactory character to their writings. In estimating the growth of wheat in England, it has not been possible to assume as data the breadth of land appropriated to its cultivation, and the average produce of the land per acre, both those elements of the computation being unknown; but the number of the consumers being known, the average consumption of each individual has been assumed, and the total quantity consumed has been thence deduced. This average consumption has been variously estimated by different writers at from six to eight bushels during the year, exhibiting a difference of one-third in their calculations. The population of England and Wales is probably at this time (1850)

17,700,000, and the difference in the provision needed, according as the consumption equals one or other of the quantities named, would be 4,425,000 quarters per annum. In former times a still further degree of uncertainty attended the estimate, from the fact of a considerable, but unascertained, proportion of the people not being habitual consumers of wheaten bread. Unless in years of scarcity, no part of the inhabitants of England, except perhaps in the extreme north, and there only partially, have now recourse to rye or barley bread, but a larger and increasing number are in a great measure fed upon potatoes, and it must be evident that any computation which assumes an average quantity in a case liable to so many disturbing influences, must be at best only vague and unsatisfactory.

The importance of knowing accurately the provision made for the sustenance of the people is surely not less than that of knowing the yearly produce of some of the less valuable articles of commerce. The condition of the crop of indigo in Bengal is accurately communicated to the merchants in London at the earliest moment when it can be known, and through its influence upon the price has an immediate effect in checking or in promoting the consumption; but as regards the staple article of our food, no systematic attempt has ever been made to ascertain its sufficiency or otherwise. It is well known that the produce of the harvest of 1837 was so far below the average consumption of the people, that before the grain of 1838 could be brought to market the stock of English wheat was all but exhausted, and, but for the supply of foreign corn stored in our granaries, there would have been a most distressing scarcity before any fresh importations could have been received. If by any means the fact of this deficiency had been ascertained when the harvest of 1837 was got in, we should certainly not have seen, as we did, an actual fall in our markets immediately following that harvest, nor a continuance of comparatively low prices up to the middle of 1838. If a timely warning could have been given, a moderate but still an adequate rise in price would have been the immediate consequence, and the consumption would have been by that means so influenced that we should, in all probability, have avoided in a great degree that excessive rise in the cost of bread, which was then productive of much hardship to our labouring classes, and which, but for the abundant demand for labour throughout the kingdom, would immediately have occasioned general and wide-spread distress.

There is among the people of this country a most unaccountable prejudice against the adoption of any organized plan on the part of the Government for obtaining this knowledge. It would be difficult for our farmers to point out any mischief that could result to them from such a course, and, on the other hand, it must be quite unnecessary to explain the kind and degree of advantage which the country generally, and

which they especially, would derive from the possession of accurate details on this subject. The high prices to which corn advanced towards the end of 1838 were of but little advantage to the growers, who had for the most part already brought their stocks to market, in ignorance of the facts which afterwards became apparent; so that the benefit of the rise was almost wholly engrossed by the importers of foreign grain, and this would certainly not have been the case if any accurate estimate of the crop of 1837 could have been made.

In Belgium every kind of information connected with the production of the kingdom is obtained with considerable accuracy, by means of a body of gentlemen (usually proprietors) residing in different localities, and who are elected in the respective provinces, for purposes of local government, by the same persons that elect deputies to the legislative chamber. The functions of persons thus elected are in many respects similar to those of justices of the peace in English counties. Having local knowledge concerning the condition and circumstances of the several *communes* in their districts, they are enabled readily to prevent or to detect errors in the returns made by the several farmers or occupiers, and there is therefore every reason to place a considerable degree of reliance upon the accuracy of the result. This result is annually presented by them in a detailed report, which is printed under the authority of the governor of the province, and is open to the use of every one of the inhabitants. It has never been pretended that any improper advantage has been taken of the knowledge thus acquired; and if this can be said of Belgium, where the members of the legislative chambers have not by any means so great nor so direct an interest in the landed property of the kingdom as is possessed by the members of our two Houses of Parliament, there cannot surely be any reason to dread lest injury should thus be occasioned in England. The information which it appears to be so desirable to obtain with reference to the whole kingdom, is already procurable with the greatest facility with regard to each individual farm, by any person having a sufficient interest to incite him to the task. The landlord, who is interested in extracting a due proportion of the produce of a farm in the name of rent, cannot find much difficulty in correctly estimating that produce. A similar facility attends the operation both of the tithe-proctor and of the officers of the parish. The information is therefore already procurable by every one who can turn it to the disadvantage of the farmer; and all that is wanted is to extend it, so that the farmer himself, as well as the nation at large, may be enabled to profit from it. If the members of our two Houses of Parliament belonged exclusively to the mercantile and manufacturing classes, there might be some appearance of prudence in concealment on the part of the agriculturists, but in the actual state of

things, when, with scarcely an exception, every member of the House of Lords draws his revenue from land, and a great majority of the House of Commons are similarly circumstanced, it is quite absurd to suppose that any measures inimical to the interests of those who possess or occupy the soil would be attempted by them.

The impossibility of estimating correctly the consumption of the country in the common kinds of food does not extend to many other articles of use. These are for the most part imported from foreign countries, while some, which are of home production, are subject to Excise regulations, and their quantities are thus made known. In order to trace the power of consumption at different periods in this kingdom, it will suffice to select a few of the more important articles in these two classes. The five several years in which the census has been taken, have, for an obvious reason, been adopted for the purpose of making this comparative statement. Owing to the deficiency of information upon which reliance can be placed with regard to the population of Ireland previous to 1821, it will not be possible in all cases to embrace that part of the kingdom in the calculations.

Sugar.—The Parliamentary returns relative to this article of consumption did not until of late years correctly indicate the quantity retained for use within the kingdom. It is the practice in the annual statements prepared at the Custom-house, to consider every ton of refined sugar that is exported to be equal to, and to represent 34 cwts. of raw sugar; and this larger weight is deducted in respect of each ton so exported from the quantity upon which duty is paid, in order to arrive at the quantity actually used. This proceeding involves a great and palpable error, through which the apparent home consumption is made to vary according to the amount of the exports of refined sugar. The actual loss through waste in the operation of refining does not ever amount to more than 5 per cent., and seldom reaches that rate: it would therefore be more correct to consider a ton of refined sugar to represent 21 cwts. of the unrefined material, and this course has been adopted in the following computations. The statement would be incomplete if molasses, which is sugar in a liquid form combined with water, were not included. The proportion which this should bear to sugar in a crystalline state has been assumed on the average to be as 3 to 8, the duty being imposed on the two descriptions in that ratio. The quantity of molasses upon which duty was paid in 1811 is therefore added, considering 24 cwts. to be equal to 9 cwts. of crystalline sugar. Through the prohibition to employ grain in the distilleries, and the consequent substitution of sugar, its use was greatly increased in 1811. The quantity thus employed in that year appears to have been

544,192 cwts., thus reducing its aggregate consumption in the saccharine form to 2,748,129 cwts., and the proportion used by each individual to 24 lbs. 9 ozs.

GREAT BRITAIN.	1801	1811	1821
Quantity cleared for consumption, *viz.*:—			
Sugar . . . . . cwts.	3,341,496	3,398,367	3,128,026
Molasses . . . . . „	..	..	21,428
Total, as if sugar . . . . „	3,341,496	3,398,367	3,149,454
Refined sugar exported in the proportion of 21 for 20 . . . . . „	350,639	106,046	677,708
Quantity remaining for consumption . „	2,990,857	3,292,321	2,471,746
Rate of duty . . . . . per cwt.	20*s.*	27*s.*	27*s.*
Population	10,942,646	12,596,803	14,391,631
Consumption of each individual	30 lb. 9¾ oz.	29 lb. 4½ oz.	19 lb. 3¾ oz.

IRELAND.	Average of Three Years ended 25 March, 1800	Average of Three Years ended 5 January, 1810	1821
Quantity of sugar retained for consumption . . . . . cwts.	298,069	420,093	380,608
Rate of duty . . . . . per cwt.	17*s.* 6*d.*	27*s.*	27*s.*
Population	5,395,456	5,950,917	6,801,827
Consumption of each individual	6 lb. 3 oz.	7 lb. 14½ oz.	6 lb. 4¼ oz.

Owing to the regulation of the year 1826, by which the trading intercourse between Great Britain and Ireland was placed on the footing of a coasting trade, it became impossible thereafter to state the consumption of sugar in the several divisions of the kingdom. The raw sugar used in Ireland is for the most part imported direct from the places of production; but refined sugar is chiefly supplied to Ireland from Great Britain, and no account of the quantity is kept by the Custom-house officers.

While it is necessary to raise any considerable revenue, and so long as it shall be thought advisable to do so by means of indirect taxation, it would be difficult to point out any article better fitted for the purpose than sugar. Without being one of the absolute necessaries of life, long habit has in this country led almost every class to the daily use of it, so that there is no people in Europe by whom it is consumed to anything like the same extent. It is besides, from its bulk, in proportion to its value, not likely to be clandestinely imported. If it were attempted to subject it to such a rate of duty as would convert it into an object of temptation to the smuggler, the legitimate consumption would fall off to such a degree as would render the attempt on the part of the Government altogether abortive. The action of the smuggler, which, with regard to many articles—such as tobacco and spirits—may be considered to form the natural limit to taxation, affords therefore no criterion in the case of sugar, but we may find in the foregoing computations a

sufficiently significant indication that the rate of duty was for many years after the war continued on too high a scale; and that by making a great reduction in that rate we have so increased the consumption as not merely to give an impulse to trade, but also to increase the revenue. Confining the inquiry to Great Britain, it appears that if we take population as an element in the computation, the revenue did not gain by the increased rates imposed in 1805:—

Years.	Population.	Net Revenue.	Rate of Duty.	Tax per Head.
		£.		s. d.
1801	10,942,646	2,782,232	20s. per cwt.	5 1
1811	12,596,803	3,339,218	27s. „	5 3½
1821	14,391,631	3,660,567	27s. „	5 1½
1831	16,539,318	4,219,049	24s. „	5 1½
1841	*18,532,335	4,686,241	24s. & 5 per cent.	5 0¾

If we extend the calculation so as to embrace Ireland, the result will be found as follows:—

Years.	Population.	Net Revenue.	Rate of Duty.	Tax per Head.
		£.		s. d.
1801	16,338,102	3,066,163	20s. per cwt.	3 9·04
1811	18,547,720	†3,183,505	27s. „	3 5·19
1821	21,193,458	4,077,706	27s. „	3 10·17
1831	24,029,702	4,650,589	24s. „	3 10·44
1841	26,711,694	5,114,390	24s. & 5 per cent.	3 9·95

Of all articles of consumption which are not absolute necessaries of life, sugar is, perhaps, that which in this country is the most easily acted upon by price.

The following table (*see* p. 543), which includes the whole kingdom, shows the quantity of sugar, and of molasses equivalent to crystalline sugar, retained for consumption in the United Kingdom in each year, from 1830 to 1849, together with the average price during the year, computed from the *Gazette* advertisements, and the average consumption of each individual stated in pounds and decimal parts of a pound.

If, by means of this statement, we trace from year to year the fluctuations in price, we shall find that they are attended by corresponding fluctuations in the consumption, and that with a degree of regularity more like the operations of a piece of machinery than as resulting from circumstances affecting in such various ways and in such different degrees our numerous population. With one exception only, that of the year 1835, every rise in price has been accompanied by diminished consumption, while every fall in the market has produced an increased demand. It will be remembered that the year 1835, in which there appears some departure from the uniformity of this effect, was a year of

* Exclusive of the Channel Islands.

† Allowing 734,659*l.* in respect of 544,192 cwts. of sugar used in the distilleries.

Years.	Quantity of Sugar retained for Consumption.	Molasses equivalent to Sugar taken for Consumption.	Sugar and Molasses retained for Consumption.	Average Price, per London Gazette.	Average Price, including the Duty.	Average Consumption of each Person.
	Cwts.	Cwts.	Cwts.	*s.* *d.*	*s.* *d.*	lbs.
1830	4,147,350	126,595	4,273,945	25 0¼	49 0¼	19·94
1831	4,233,509	130,734	4,364,243	23 8	47 8	20·11
1832	3,974,627	212,508	4,187,135	28 8¼	52 8¼	19·00
1833	3,780,138	241,457	4,021,595	29 7½	53 7½	17·99
1834	4,013,919	190,492	4,204,411	29 2½	53 2½	18·31
1835	4,116,153	233,429	4,349,582	33 9½	57 9½	19·21
1836	3,676,496	246,405	3,922,901	40 9	64 9	16·58
1837	4,127,446	222,007	4,349,453	34 5	58 5	18·83
1838	4,089,453	197,329	4,286,782	33 7	57 7	18·38
1839	3,847,629	199,987	4,047,616	39 4½	63 4½	17·18
1840	3,606,038	158,672	3,764,710	48 7¾	73 10¼	15·28
1841	4,057,628	150,696	4,208,324	38 3¼	63 5¾	17·65
1842	3,868,466	199,865	4,068,331	37 2½	62 5	16·76
1843	4,028,307	168,558	4,196,865	33 11½	59 2	17·11
1844	4,129,443	230,030	4,359,473	33 5	58 7½	17·59
1845	4,856,604	234,700	5,091,304	32 9	46 9	20·33
1846	5,238,656	218,498	5,457,154	34 5	48 5	21·57
1847	5,805,638	239,483	6,045,121	28 3	42 3	23·64
1848	6,188,487	238,747	6,427,234	23 9½	36 9½	24·88
1849	5,982,593	304,624	6,287,217	26 4	38 4	24·12

great, of almost universal, excitement throughout the kingdom. Never before, perhaps, was there an equal number of public works in operation. Every man who was able and willing to work readily obtained employment at full wages. Every loom was filled, every anvil was at work, and, to crown the advantages thus enjoyed by our labouring population, the chief necessaries of life were procurable at prices lower than had been previously known by the existing generation. Under these circumstances, it cannot be matter for surprise that the people should have expended a little more than usual of their earnings upon an article of consumption so universally desired as sugar. But even under these circumstances of comparative ease, the average consumption of 1835 did not attain the rate which it reached in 1830 or in 1831, when the market price was from 8*s.* to 10*s.* per cwt. lower, but when the condition of the labouring population was not in other respects so prosperous as in 1835.

It will be observed that the year 1845 is marked by a larger consumption than occurred in the year 1831, although the market price, exclusive of duty, was higher by 9*s.* 1*d.* per cwt., or nearly 1*d.* per pound. This result was obtained through an abatement in the duty, which took effect only from the 14th of March, 1845, exceeding in a small degree that difference in price. The market-price of 1831, added to the duty then chargeable, amounted to 47*s.* 8*d.* per cwt., while the cost and reduced duty of 14*s.* per cwt., in 1845, amounted together to 46*s.* 9*d.* The experience of that and the following years under these altered circumstances comes therefore strongly in corroboration of the fact shown by previous computations. If we estimate the consumption for the year ending the

5th of April, 1846, and consequently for twelve months during which the reduced duty was charged, it appears that the average quantity per head consumed by each individual of the population was 21·18 lbs. Concurrently with the reduction in the rate of duty chargeable on sugar the produce of British possessions, a reduction was also made in the duty upon foreign sugar, the product of free labour, from 63*s.* and 5 per cent. thereon per cwt., to 23*s.* 4*d.* per cwt. But for some such modification no advantage to the consumer could have followed any abatement in the duty, for the difference would have been simply transferred from the public Exchequer to the producers of British-grown sugar, the quantity of which was already too small for the wants of the public. The limitation of this change in the manner described could not be justified upon any correct principle, nor was it probable that it could be long maintained. The admission of all foreign sugar at the lessened rate of duty last mentioned, and which took place in 1846, caused a further consumption, and consequently an increased revenue, but neither the sugar trade nor any other trade will ever be placed upon a proper footing so long as any differential duty shall continue to deform the tariff.* We have seen, that when the duty charged was 20*s.* per cwt., and when the market afforded a superabundant supply admissible at that rate, the consumption of Great Britain exceeded 30 lbs. per head in the year, and no sufficient reason presents itself for assuming that, under similar conditions, the consumption of the United Kingdom would exhibit a lower average. If this view should prove correct, the revenue derived from sugar at 20*s.* per cwt. would now amount to 7,500,000*l.* per annum, instead of 3,574,469*l.* as in the year 1845.

The quantities stated in the foregoing table, as the yearly consumption of each individual, are average quantities, calculated on the assumption that the rich and the poor, the nobleman and the beggar, fare alike in their use of this condiment. It would be difficult to discover with accuracy the consumption of the various ranks into which the community is divided. There are of course many whose use of sugar is not governed by its market price, so far at least as any fluctuations that we have experienced would be likely to affect them. The outlay for this article forms so small a part of the household expenses of the easy classes, that whether the price should be sixpence or a shilling per pound might have no influence in increasing or diminishing its use. The decrease or increase of the quantity consumed throughout the country is therefore evidence of a very great degree of fluctuation in its use by all other classes. From inquiries carefully made, it appears probable that in the families of the rich and middle ranks the individual yearly consumption of sugar for all purposes is 40 lbs.; if

* All differential duties on sugar will cease on the 5th of July, 1854.

then we assume that one-fifth of the families in the kingdom are so circumstanced as not to vary their mode of living with every fluctuation in the market prices of provisions, we shall find that in 1831 the average consumption per head of the remaining four-fifths was 15 lbs. 2 ozs. In 1840 the average consumption was 15¼ lbs., or 76¼ lbs. for five persons, one of which taking the constant quantity of 40 lbs. left for each of the remaining four only 9 lbs. 1 oz. Applying the same calculation to the consumption of 1849, it will be seen that each of the four would consume 20 lbs. 2 oz. Every person serving on board one of Her Majesty's ships is allowed 1½ oz. of sugar per diem, or 34 lbs. 3 oz. yearly; and the allowance given to aged paupers in the Union-houses is 1 oz. per diem, or 22½ lbs. per annum.

The year 1840 exhibits the highest average price and the lowest average consumption. The effect of price in producing this result will be rendered more strikingly apparent by comparing somewhat more in detail the consumption of the two years 1839 and 1840. The deliveries of sugar from the warehouses, and the average prices in each month of those two years, were as follows:—

Months.	1839		1840	
	Quantity.	Average Price.	Quantity.	Average Price.
	Cwts.	s. d.	Cwts.	s. d.
January	283,956	37 4¼	403,600	37 10
February	281,828	36 11¼	337,141	39 3½
March	288,156	40 4¾	237,612	40 3
April	231,723	39 4½	316,440	42 9
May	371,676	42 9	354,329	46 2½
June	332,045	41 6¼	401,797	50 11
July	400,834	40 1	312,526	57 0¾
August	411,071	40 11¾	300,264	58 1
September	353,111	40 2¼	321,137	57 10
October	275,662	37 1	238,509	57 7¾
November	341,153	38 4	200,334	56 0½
December	286,462	37 7¾	183,056	51 8¾

The great advance in price was not experienced until the month of July, 1840; and if we contrast the deliveries from the warehouses and the average prices of the two half-yearly periods of 1839 and 1840, the following is the result:—

Months.	1839		1840	
	Quantity.	Average Price.	Quantity.	Average Price.
	Cwts.	s. d.	Cwts.	s. d.
January to June	1,789,384	39 8¾	2,059,919	42 10½
July to December	2,068,233	39 0½	1,555,826	56 4¼

An advance in price not quite equal to 2*d.* per pound thus caused a diminished consumption of 25,600 tons in six months; and if the cal-

culation of the average consumption be made for the half-year in which that diminution was experienced, it will be found that it was at the rate of only 12¼ lbs. per annum for each individual, or 40 lbs. per head for those in easy circumstances, and only 6 lbs. per head for all other classes.

This result occurred under our strictest protective system, and was occasioned by short production in the West India colonies. The importations thence, which in 1831 amounted to 200,000 tons, did not in 1840 exceed 110,000 tons; and although during the interval, by a partial reform in our tariff, which now admits sugar, the produce of Bengal, at the same rate of duty as West India sugar, we thence received an additional supply equal to 12,500 tons, yet the importations of sugar in 1840 fell short even of the greatly-diminished consumption by 22,000 tons.

If this state of the trade could have been viewed as likely to continue, it is clear that the wants of the consumers and the deficiency in the revenue together would sooner have compelled the Government to remodel the system of sugar duties, so as to let in for consumption a sufficient quantity of foreign sugar. If the approach to a right system—made when the produce of Bengal was admitted at the British plantation duty—had been delayed for only a few years longer, so that we had not received increased supplies from that quarter, it is evident that some such measure of relaxation must have been adopted in 1840. Whenever it might be introduced, such a step was certain to be strongly opposed by our West India sugar-planters, and by many other persons also, who, without much consideration, have chosen to identify a high price of sugar with the happiness of the lately-emancipated slave population of our West India colonies. They are of opinion that the protection afforded to these colonies involves a great moral question—that its maintenance is to the people of England a great moral duty—that the success of the measure of emancipation ought never to be jeopardized for any money consideration—that we have purchased the freedom of the cultivators of sugar at the cost of twenty millions of money; and that having thus converted them from slaves, in which condition their owners were bound to supply their wants, into freemen who must toil for their own support, it would be cruel to place them, in the outset of their career of responsibility, in a worse position than that which they legally occupied at the moment before you gave them freedom. The argument is specious, but a slight examination of facts will serve to convince us that it is without any solid foundation.

In what respect, it may be asked, is the freed negro placed in a worse position than that which he occupied during his period of slavery? If there had been a redundancy of labourers for whom the planter was bound to provide, irrespective of the value of their labour, then indeed

their emancipation, which would also have been the emancipation of their former owners, might have been accompanied by the evil of comparative destitution. But the reverse of this position is notoriously the fact, and it is because of the insufficiency of labourers and the high wages which they are consequently able to command, that the planters have been so loud in their complaints, for—hitherto at least—it is the planters only who complain, while the labourers are represented as living in comparative luxury. Now, as well as before the emancipation, the only fund from which the negroes must be supported is the produce of their labour, and they must consequently be equally well off—*plus* their liberty—as they were before their freedom was granted. When Parliament so munificently voted, and the nation so willingly gave, twenty millions of money to bring about this blessed change in their condition, it was not proposed to give to these our fellow-citizens greater privileges and immunities than are enjoyed by other free labourers; but to argue that a higher price is needed for the products of their labour than the price at which the same products are yielded elsewhere and by others, is to affirm that something more than freedom was designed for them by the generosity of the nation.

The cost to the people of this country of the differential duty on sugar, imposed for the benefit of the English sugar colonies, had become extremely burthensome. The cost, exclusive of duty, of 3,764,710 cwts. retained for consumption in 1840 was 9,156,872*l.*, if calculated at the *Gazette* average prices. The cost of a like quantity of Brazil or Havana sugar of equal quality would have been 4,141,181*l.*, and consequently we paid in one year 5,015,691*l.* more than the price which the inhabitants of other countries in Europe would have paid for an equal quantity of sugar. This, however, is an extreme view of the case. If our markets had been open at one rate of duty to the sugar of all countries, the price of foreign sugar would have been somewhat raised, while that from British possessions would have been lowered, but it may be confidently said that even in that case the saving would have been more than four millions of money.

Again, if the public had thus been able to buy sugar at about the average price of the year 1831, we may fairly assume that the average consumption per head would have been as great in 1840 as it was in 1831, and in this case the revenue upon this article would have exceeded the sum received by more than 1,500,000*l.*

The differential duty on foreign sugar in favour of our own sugar colonies was most extravagantly great, and was meant to act as a prohibition against its consumption. The difference was 49*s.* per cwt., or 5¼*d.* per lb. When the supplies of sugar from our own colonies exceeded the home demand, this protection was of no practical effect, but for many years it operated to raise the price of British plant[illegible]

sugar, and thereby, as we have seen, to lessen the consumption. It was desirable as soon as possible to abolish this differential duty altogether, and under the existing law this result will be reached by progressive stages on the 5th July, 1854. If an approach to such a result had been made in 1837, the first of a series of years in which the public revenue proved unequal to meet the yearly expenditure, the effect upon our finances would have been most beneficial. Let us suppose that while the rate upon British plantation sugar continued at 24*s.* per cwt., and 5 per cent. thereon, the produce of foreign plantations had been admitted at 30*s.* per cwt. and 5 per cent., the result to the revenue in the four years, 1837 to 1840, would probably have been as follows:—

	1837	1838	1839	1840
	Cwts.	Cwts.	Cwts.	Cwts.
Consumption at the same average rate as 1831, viz., 20·11 lbs. per head . .	4,757,151	4,822,617	4,888,082	4,953,546
Quantity imported from British possessions	4,147,177	4,600,793	4,029,955	3,151,991
Difference required to be supplied by foreign sugar, at 30*s.* per cwt. and 5 per cent.	609,974	221,824	858,127	1,801,555
	£.	£.	£.	£.
Revenue that would have been collected if all the British plantation sugar imported had been consumed, and the deficiency supplied by foreign sugar, at the rate of 30*s.* per cwt. . . .	5,891,573	5,853,687	6,123,136	6,808,958
Revenue actually received	5,026,878	4,893,580	4,827,017	4,664,233
Difference between the revenue received and that which would have been collected	864,695	960,107	1,296,119	2,144,725
Deficiency of the public income to defray the expenditure	655,760	345,228	1,512,792	1,593,970

It appears from this statement that if the deficient supply of British plantation sugar, during the four years from 1837 to 1840, could have been made good from sugar of foreign growth at the rate of 30*s.* per cwt., not only should we have avoided all the evils attendant upon a deficient revenue, but we should have had a surplus of 1,157,896*l.* to apply towards the reduction of the National Debt. The difference in the four years to the public income would altogether have exceeded five millions of money.

Coffee.—The facts exhibited by the history of the home or consumption trade in this article are pregnant with lessons of great value as regards taxation. There are but few articles fitted for general use which have been subjected in an equal degree to alternations of high and low duties, and with respect to which we are consequently enabled with equal certainty to trace the effects of taxation in contracting or enlarging the enjoyments of the people, or to mark the comparative advantage thus produced to the Exchequer.

The quantities of coffee consumed in Great Britain in each of the

five years of the Census, comparing the consumption with the growth of the population, and exhibiting the influence of high and low duties, are shown by the following statement:—

Years.	Number of Pounds consumed.	Rate of Duty per Pound on British Plantation Coffee.	Population of Great Britain.	Average Consumption.	Sum Contributed per Head to the Revenue.
	lbs.	*s.* *d.*		lb. ozs..	*d.*
1801	750,861	1 6	10,942,646	0 1·09	1½
1811	6,390,122	0 7	12,596,803	0 8·12	4
1821	7,327,283	1 0	14,391,631	0 8·01	6
1831	21,842,264	0 6	16,262,301	1 5·49	8
1841	27,298,322	0 6	18,532,335	1 7·55	10½

It appears from the above statement, that when the duty amounted to 1*s.* 6*d.* per lb., the use of coffee was confined altogether to the rich. The quantity used throughout the kingdom scarcely exceeded, on the average, 1 oz. for each inhabitant in the year, and the revenue derived was altogether insignificant. In the interval between 1801 and 1811 the rate of duty was reduced from 1*s.* 6*d.* to 7*d.* per lb., whereupon the consumption rose 750 per cent., and the revenue derived was increased more than threefold. During the next decennary period the duty was again advanced to 1*s.* per lb., by which means the progressive increase was checked so as to render the consumption actually less in 1821, taking the increased population into account, than it was in 1811. In 1825 the duty was again reduced to one-half the previous rate, and we see that in 1831 the consumption was consequently increased 14½ millions of lbs., or nearly 200 per cent., the average consumption of each individual being raised from 8 to 21 ozs. per annum, while the revenue was increased by 100,000*l.* The duty on coffee, the growth of the British plantations in America, was continued at the same rate until 1842; but as the consumption, after the reduction of duty in 1825, speedily overtook the power of production in those plantations, the quantity used was necessarily limited, until the market price should be raised so high as to admit the produce of British India, upon which a duty of 9*d.* per lb. was chargeable. This in effect soon occurred. In 1835 the importations from the British West Indies were less than 15 millions of lbs., and the state of the market made it advisable for the dealer to pay the additional duty of 28*s.* per cwt. upon East India coffee, of which 5,596,791 lbs. were thus brought into consumption in that year, but without augmenting the aggregate quantity used. It being thus evident that the supply from our western colonies was incommensurate with the wants of the country, and that even the stimulus of a high monopoly price was ineffectual for its increase, the tariff was modified at the end of 1835 so as to admit coffee, the growth of the British possessions in India, at the low duty of 6*d.* per lb.

this the consumption, which had been stationary for the five preceding years, again suddenly started forward, to be again checked by the inadequacy of even the enlarged supply, and the price was, by this virtual monopoly, sustained so high that it became worth the while of merchants to send coffee, the growth of foreign plantations, and which was liable to pay a consumption duty of 1*s.* 3*d.* per lb., to the Cape of Good Hope for reshipment to this country, by which expensive ceremony it became entitled to admission at the modified rate of 9*d* per lb., or 28*s.* per cwt. beyond that exacted on coffee the growth of British possessions, the difference in the market price being more than equal to this, in addition to all the charges of the outward and homeward voyages. The injurious effect of this state of things to the revenue, and its hardship upon the consumer, were at length met by a modification of the duties, which afforded temporary relief, but which still left an advantage to the British coffee-planter over the foreign producer of 37*s.* 4*d.* per cwt.

In 1842 the duty upon British plantation coffee was reduced to 4*d.* and upon all foreign coffee to 8*d.* per lb., and in 1844 this latter rate was further reduced to 6*d.* per lb. The quantity consumed in each year since 1841 has been—

Years.	lbs.	Years.	lbs.
1842	28,519,646	1846	36,754,554
1843	29,979,404	1847	37,441,373
1844	31,352,382	1848	37,077,546
1845	34,293,190	1849	34,399,374

It could not fail to produce a powerful effect upon commercial legislation if we could always count the cost of interferences with the natural course of trade. If it could be shown how great is the waste of property that at all times accompanies attempts to favour some at the expense of the rest, it may be presumed that Government would hesitate before they entered upon so hurtful a course. The following estimate exhibits an amount of capital thrown away as effectually as if it had been cast into the sea, in order to take advantage of the privilege of bringing into consumption, at the duty of 9*d.* per lb., coffee that was otherwise liable to pay 1*s.* 3*d.* per lb.

Freight, insurance, landing, and shipping charges on

		£.	*s.*	*d.*		£.
7,080 tons shipped from Europe . . .	at	10	6	8	per ton,	73,160
5,060 „ „ West Indies . .	–	4	17	0	„	24,540
5,680 „ „ Brazil	–	4	10	0	„	25,560
2,030 „ „ Java	–	2	0	0	„	4,060

To which must be added for interest, loss of weight, and deterioration of quality, including risk of sea damage, on

		£.	*s.*	*d.*		£.
7,080 tons shipped from Europe	at	3	5	0	per ton,	23,010
10,740 „ „ West Indies and Brazil,	–	2	10	0	„	26,850
						£ 177,180

In estimating the cost to the consumer of this roundabout operation, it will be correct to assume that the enhancement of price upon the whole quantity used is governed by the highest rate of expense to which any part is subject, since it is evident that if the voyage from Europe were not undertaken, the coffee might be as advantageously sold at an equivalent reduction in price, and this reduced price would determine that of the whole, because there cannot be in any market two prices at the same time for the same article. It appears, therefore, that the price of all the coffee used in this country in 1840 was increased to the consumer by 28*s.* per cwt.—the difference of duty, in addition to 13*s.* 7*d.* per cwt, the expense of sending coffee from Europe to the Cape of Good Hope and back. This increased price on 28,723,735 lbs. amounted to 533,227*l.*, but the higher duty was received on 14,228,404 lbs., giving an advantage to the Exchequer of only 192,416*l.* If the difference between these amounts were added to the revenue derived from coffee, it would make the rate of duty equal to 10½*d.* per lb. upon the whole quantity consumed, and it is clear that had the consumers been allowed to pay that rate of duty upon every kind of coffee that comes to market, the effect to them would have been the same, while the revenue would have benefited to the amount of 340,811*l.* If there had been no differential or protective duty, but all kinds of coffee had been admitted at the duty charged on that of the British plantations, the public would have had the means of expending additionally on the article the above-mentioned sum of 533,227*l.*, which would have purchased very nearly twelve millions of pounds, and thus have added 40 per cent. to the consumption, and nearly 100,000*l.* to the revenue.

These calculations can hardly fail to convince every one of the great importance, commercially, of equal and moderate duties; but in the particular case of coffee there is another and even a stronger argument in favour of such a system of duties. It was given in evidence before the Committee on Import Duties, which sat in 1840, that since the duty on British plantation coffee was reduced to 6*d.* per lb., there have been a vast number of coffee-shops opened in London, at which working men are served at a low price; that some of these places are frequented daily by many hundred persons who used formerly to resort for refreshment to public-houses; that this beneficial change in the habits of working men has been entirely owing to the cheapness of the refreshment obtained, and that any advance in the price which should remove this advantage of comparative cheapness would have the effect of sending the present customers of coffee-shops back to the use of intoxicating liquors.

Tea.—The lessons taught by the facts above detailed, with regard to the consumption of coffee, are abundantly confirmed by the history of our tea-trade. There are not any records in existence to show the con-

sumption of this article in Great Britain only. Until the opening of the China tea-trade in 1833, tea could not be legally imported except into the port of London, where alone the duty was received upon all that was consumed throughout the United Kingdon. The following comparative statement of the consumption at the periods selected must therefore be considered to apply to Ireland as well as to Great Britain :—

Years.	Number of Pounds consumed.	Rate of Duty.	Population of United Kingdom.	Average Consumption.	Contributions per Head to Revenue.
	lbs.			lb. ozs.	s. d.
1801	20,237,753	20 per cent. under 2s. 6d. per lb. and 50 per cent. above . .	16,338,102	1 3·75	1 9½
1811	20,702,809	96 per cent. on value . . .	18,547,720	1 1·10	4 0½
1821	22,892,913	96 per cent. under 2s. per lb. and 100 per cent. above .	21,193,458	1 0·52	3 6
1831	29,997,101	Same as in 1821	24,029,702	1 3·93	2 9
1841	36,675,667	2s. 1d. per lb.	26,711,694	1 5·96	2 11

The difference in the proportionate consumption at the above periods is small, when compared with the fluctuations experienced with other articles. During the whole of the time down to 1833, the trade was held as a monopoly strictly in the hands of the East India Company, and the consumption was checked not only by the high duty and the enhancement of the price by reason of the monopoly, but also by the mode of taking the duty according to the sale price, and by which means the monopoly was made to work the twofold injury of increasing both the price and the rate of duty. On the opening of the trade in 1833 it was justly anticipated that the market price of tea would fall, and consequently that the produce of an *ad valorem* duty would fall likewise, for which reason the *ad valorem* rate was changed for such a fixed duty as, calculating from the consumption of previous years, would yield to the Exchequer an amount of revenue equal to that received in those years.

The consumption of this class of articles affords a very useful test of the comparative condition, at different periods, of the labouring classes. If by reason of the cheapness of provisions the wages of the labourer afford means for indulgence, sugar, tea, and coffee are the articles to which he earliest has recourse, and his family partake in the sober gratification. On the other hand, it will often happen that where the power of buying these things is not enjoyed, the small sum that can still be spared after the purchase of his loaf is bestowed in procuring that stimulating draught which is then more than ever desired, and the man is driven from his cottage to the public-house. We may thus reconcile the apparent anomaly which has been so often remarked, that the Excise revenue maintains its level during even lengthened periods of distress.*

* For an illustration of this remark, see page 309.

The history of the tea-trade affords abundant proof of the effect produced on consumption by alterations in the rate of duties. In 1784 the duty was 1*s.* per pound, and 67 per cent. on the value, and the quantity consumed was no more than 4,948,983 lbs. In the following year the rate was reduced to 12½ per cent. on the value, and the consumption rose in that and the two following years as under:—

Years.	lbs.
1785	10,856,578
1786	12,359,380
1787	17,047,054

Similar effects had followed reductions in the duty at former periods. In 1746 a reduction equal to about 2*s.* per pound caused an increase in the quantity to more than three times that on which duty had been paid in 1745. In 1768 an abatement of 1*s.* per pound on black tea caused the consumption to increase immediately 80 per cent., and when in 1773 the shilling duty was reimposed, the consumption fell back to its former scale.

Now that our commercial relations with China appear to be placed upon a secure footing, if a bold measure of reduction in the duty on tea should be adopted, can it be doubted, with these historical facts before us, that the Exchequer would soon find an advantage from it, while the trade and manufactures of the country would be proportionately benefited, and the people of this country, the working classes, would have the sum of their rational enjoyments enlarged?

The consumption of tea has greatly increased since 1841, and although no abatement has been made in the rate of duty, an equal benefit to the consumer has been experienced through a reduction in the import price. The quantities have been:—

Years.	lbs.	Years.	lbs.
1842	37,355,911	1846	46,740,344
1843	40,293,393	1847	46,314,821
1844	41,363,770	1848	48,734,789
1845	44,193,433	1849	50,021,576

Malt.—The use of malt in this country has fallen off materially during the last hundred years, when compared with the numbers of the people; but it would not be correct to attribute this circumstance wholly to the effect of taxation, although there can be no doubt that the consumption has been materially checked by the duty imposed. The introduction of tea and coffee into extensive use throughout the kingdom must necessarily have interfered with the consumption of beer, and the same effect must have followed the increased use of spirits, only a small proportion of which is distilled from malted grain.

The consumption of malt at various periods of the present century, in the different divisions of the kingdom, has been as follows:—

	Years.	Number of Bushels Consumed.	Rate of Duty per Bushel.	Population.	Average Consumption.	Contribution per Head to Revenue.
		Bushels.	s. d.		Bushels.	s. d.
England and Wales.	1801	18,005,786	1 4½	9,343,578	1·92	2 7
	1811	25,982,749	4 5½	10,791,115	2·40	10 9
	1821	26,138,437	3 7¼	12,298,175	2·12	7 8
	1831	32,963,470	2 7	13,897,187	2·37	6 1
	1841	30,956,348	2 7	15,911,725	1·94	5 0
Scotland	1801	607,384	0 8½	1,599,068	0·38	0 3½
	1811	1,012,236	3 9½	1,805,688	0·56	2 1½
	1821	1,305,659	3 7¼	2,093,456	0·62	2 2½
	1831	4,186,955	2 7	2,365,114	1·77	4 6¾
	1841	4,058,246	2 7	2,628,957	1·54	3 11¾
Ireland	1801	1,030,175	1 6½	5,395,456	0·19	0 3½
	1811	2,681,842	2 6¾	5,950,917	0·45	1 2
	1821	1,949,315	3 6¾	6,801,827	0·28	1 0
	1831	2,101,844	2 7	7,767,401	0·27	0 8½
	1841	1,149,691	2 7	8,179,359	0·14	0 4½
United Kingdom.	1801	19,643,345	..	16,338,101	1·20	1 7¾
	1811	29,676,827	..	18,547,720	1·60	6 10
	1821	29,393,411	..	21,193,458	1·38	4 11¼
	1831	39,252,269	2 7	24,029,702	1·63	4 2
	1838	40,505,566	2 7	25,907,036	1·56	4 0
	1840	42,456,862	2 7	26,443,495	1·60	4 1½
	1841	36,164,285	2 7	26,711,694	1·35	3 5¾

It has been already mentioned, that at different periods during the last century the consumption of malt in England was greater, in proportion to the population, than at any subsequent time. The average consumption of each individual in each decennary year, from 1740 to 1790, was as follows:—

Years.	Bushels.	Rate of Duty.	Years.	Bushels.	Rate of Duty.
		s. d.			s. d.
1740	3·78	0 6⅛ per bushel.	1770	3·38	0 9¼ ⅛ per bushel.
1750	4·85	„ „	1780	3·94	1 4¼ „
1760	4·29	0 9¼ ⅛ „	1790	2·57	„ „

The great increase of consumption during the last fifteen years has been occasioned by the repeal of the duty on beer, which, while it existed, was, in fact, an additional duty on malt. The number of bushels used, and the proportion when compared with the population in each of the twenty-one years from 1829 to 1849, were as follows:—

Years.	Bushels used.	Consumption per Head. Bushels.	Years.	Bushels used.	Consumption per Head. Bushels.
1829	29,153,177	1·22	1840	42,456,807	1·60
1830	32,962,454	1·37	1841	36,164,285	1·35
1831	39,252,269	1·63	1842	35,851,407	1·31
1832	37,390,455	1·53	1843	35,693,884	1·30
1833	40,075,895	1·63	1844	37,187,178	1·34
1834	41,145,596	1·65	1845	36,546,088	1·30
1835	42,892,054	1·70	1846	42,097,085	1·49
1836	44,387,719	1·78	1847	35,307,813	1·24
1837	40,551,149	1·59	1848	37,546,157	1·31
1838	40,505,566	1·56	1849	38,935,460	1·34
1839	39,315,824	1·48			

The tax on malt has always been unfavourably viewed by the agricultural interest, under the common but unaccountable impression that the amount is paid by the producers, and not, as it in fact is, by the consumers. Under this impression, the endeavour to cause its repeal has at times been strenuously made, and it is probable that it would not always have been made in vain, could any sufficient substitute for the revenue have been found that would not have been even more distasteful to landlords.

The importation of malt from foreign countries is strictly prohibited; and as, from some cause or other, not very well understood, barley brought from beyond seas cannot be profitably malted here, our landowners enjoy the practical monopoly of the home market. The foreign-grown barley that is sometimes imported is used for grinding and other purposes for which inferior qualities are adapted, and thereby admits of a more extensive use of the superior home-grown barley in the form of malt. When the corn trade was free, and the duty on malt was more reasonable that it has been of late years, we have seen that the barley districts of England afforded an abundant supply of a quality adapted to the use of the maltster.

Spirits.—Owing to the high price of corn in 1801 and 1811, Parliament interfered to prevent the distillation of spirits except from sugar and molasses. The derangement thus occasioned prevents any accurate calculation of consumption in those particular years; the years next in succession are accordingly assumed for the following comparison, and the population during those years has been computed accordingly:—

	Years.	Number of Gallons.	Rate of Duty per Gallon.	Population.	Average Consumption.	Contribution per Head to Revenue.
		Galls.	s. d.		Galls.	s. d.
England	1802	3,464,380	5 4½	9,490,132	0·36	1 11½
	1812	3,622,970	10 3	10,941,821	0·33	3 5
	1821	4,125,616	11 8½	12,208,175	0·33	3 10¾
	1831	7,434,047	7 6	13,897,187	0·53	3 11¼
	1838	7,930,490	7 6	15,307,364	0·51	3 10
	1840	8,278,148	7 10	15,710,271	0·52	4 0¾
	1841	8,166,985	7 10	15,911,725	0·51	4 0
Scotland	1802	1,158,558	3 10½	1,619,730	0·71	2 9
	1812	1,581,524	8 0½	1,834,465	0·86	6 11
	1821	2,385,495	6 2	2,083,456	1·14	7 0½
	1831	5,700,689	3 4	2,365,114	2·41	8 0½
	1838	6,259,711	3 4	2,543,961	2·46	8 2½
	1840	6,180,138	3 8	2,595,061	2·38	8 8½
	1841	5,989,905	3 8	2,620,610	2·28	8 4½
Ireland	1802	4,715,038	2 10½	5,451,002	0·86	2 5½
	1812	4,009,301	5 1½	6,036,008	0·66	3 4½
	1821	3,311,462	5 7½	6,801,827	0·48	2 8½
	1831	8,710,672	2 4	7,767,401	1·11	2 7
	1838	12,296,342	2 4	8,055,771	1·52	3 6½
	1840	7,401,051	2 8	8,138,163	0·90	2 4½
	1841	6,485,443	2 8	8,179,359	0·80	2 3½

	Years.	Number of Gallons.	Rate of Duty per Gallon.	Population.	Average Consumption.	Contribution per Head to Revenue.
		Galls.	s. d.		Galls.	s. d.
United Kingdom.	1802	9,338,036	..	16,560,864	0·56	2 3
	1812	9,213,795	..	18,812,294	0·49	3 9¼
	1821	9,822,573	..	21,193,458	0·46	2 11¼
	1831	21,845,408	..	24,029,702	0·90	4 3¼
	1838	26,486,543	..	25,907,096	1·02	4 2½
	1840	21,859,337	..	26,443,495	0·82	3 11¼
	1841	20,642,333	..	26,711,694	0·77	3 10¼

The falling off in the consumption of spirits in Ireland in the years 1840 and 1841 is one of the most remarkable events of our day. It resulted entirely from the efforts of one man, the Rev. Theobald Mathew, a Catholic clergyman, who availed himself of his power of influencing his fellow-men to produce a sudden change in the habits of vast numbers, reclaiming them from the vice of drunkenness and its accompanying evils to an extent which nothing short of the fact itself could induce us to think possible. "Father Mathew," to use the name by which he is generally known, aware of the command over themselves which many of his countrymen have occasionally exhibited in keeping their vows to abstain for some limited time from the use of intoxicating liquors, led vast numbers of them to pledge themselves so to abstain, not indeed for all future time, but until they should formally signify to him their intention of recurring to the use of whiskey. Many have been led thus to take up the pledge of abstinence, because they can lay it down again at pleasure; but as the renunciation must be a deliberate act, which can hardly ever be performed at the time when the temptation is upon them, and as some degree of weakness would be implied in that renunciation, the chances are great that it will be postponed from time to time, until the habit of sobriety and the sense of personal respectability and domestic comfort which it brings shall have removed all desire for resuming a course of intemperance. If the change thus brought about shall prove in any degree permanent, Father Mathew must be acknowledged one of the greatest benefactors that the people of Ireland have ever known. The degree in which his influence extended is apparent from the following figures, showing the quantity of spirits distilled in Ireland, and the revenue collected thereon, in each of the five years from 1837 to 1841:—

Years.	Gallons.	Duty.
1837	11,235,635	£1,310,824
1838	12,236,342	1,434,573
1839	10,815,700	1,261,832
1840	7,401,051	936,126
1841	6,485,443	864,726

The consumption of colonial and foreign spirits in Scotland and Ireland has at all times been small in comparison with the use of those articles in England. Of late years home-made spirits have almost

wholly taken the place of rum and brandy in Scotland and Ireland. Of 2,277,970 gallons of rum and 1,186,104 gallons of foreign spirits on which consumption duty was paid in 1841, there were 2.217,073 gallons of rum and 1,127,849 gallons of brandy and Geneva used in England.

For the reason already assigned in noticing the consumption of British spirits, the years 1801 and 1811 would not afford means for correctly comparing the consumption of different periods, and the results for 1802 and 1812 are accordingly substituted.—*See* p. 558.

The consumption of home-distilled spirits in each division of the kingdom since 1841, has been as follows:—

Years.	England.	Scotland.	Ireland.	Total.
	Galls.	Galls.	Galls.	Galls.
1842	7,956,054	5,595,186	5,290,650	18,841,890
1843	7,724,051	5,593,798	5,546,483	18,864,332
1844	8,234,440	5,922,948	6,451,137	20,608,525
1845	9,076,381	6,441,011	7,605,196	23,122,588
1846	9,179,530	6,975,091	7,952,076	24,106,697
1847	8,409,165	6,193,249	6,037,383	20,639,797
1848	8,613,256	6,548,190	7,072,933	22,234,379
1849	9,102,472	6,935,003	6,973,333	23,010,808

The diminished consumption of foreign spirits observable in 1812 was occasioned by the war at that time carried on with all the countries of Europe, and which for some time wholly shut out from our ports the produce of France and Holland. The trade has since been resumed without any check except that caused by high duties, and this it will be seen has effectually kept down the consumption. In 1802, with a duty of 11*s.* 4½*d.* per imperial gallon, the average consumption of each person in England somewhat exceeded one-fifth of a gallon; while in 1841, with a duty of 22*s.* 10*d.* per gallon, the average consumption was scarcely more than one-third of that quantity. This high duty was first imposed during the war, and was then intended to act as a prohibition. It would be difficult to assign any good reason for its continuance during the long period of peace that we have since enjoyed. Under the plea of protection to agriculture our legislature has, in modern times, always given an advantage in this respect to home-made corn-spirits; but the unreasonableness of such a protection, when it amounted, as in this case, to three times the duty upon the home-made produce, is such that it would scarcely have been practicable to impose it upon such a plea, although it received a ready and general acquiescence when adopted as a measure of annoyance to an enemy. There can be no doubt, however, that it is this motive of giving a preference to our farmers over the wine-growers of France, or, to speak more correctly, against all other classes of our countrymen, which prevented, until the year 1846, the introduction of any modification during all the many years that have passed since the original plea has ceased to operate. The evil

RUM.

	Years.	Gallons.	Rate of Duty per Gallon.	Population.	Average Consumption.	Contribution per Head to the Revenue.
			s. d.		Galls.	s. d.
England.	1802	2,204,807	9 0½	9,490,132	0·23	2 1
	1812	3,205,465	13 7½	10,941,821	0·29	4 0
	1821	2,166,441	13 11½	12,298,175	0·17	2 4½
	1831	3,479,911	9 0	13,897,187	0·25	2 3
	1838	3,029,495	9 0	15,307,864	0·19	1 8½
	1841	2,217,073	9 4	15,911,725	0·14	1 3½
Scotland.	1802	468,163	9 0½	1,619,730	0·29	2 7½
	1812	286,569	13 7½	1,834,465	0·15	2 0½
	1821	138,189	13 11½	2,093,456	0·06	0 10
	1831	125,702	9 0	2,365,114	0·05	0 5½
	1838	86,460	9 0	2,543,961	0·03	0 3¼
	1841	48,523	9 4	2,620,610	0·02	0 2¼
Ireland.	1802	637,005	5 6½	5,451,002	0·12	0 8
	1812	283,135	10 3½	6,036,008	0·04	0 5
	1821	19,685	12 9	6,801,827	0·003	0 0½
	1831	18,984	8 6	7,767,401	0·002	0 0¼
	1838	19,701	9 0	8,055,771	0·002	0 0¼
	1841	12,374	9 4	8,179,359	0·0015	0 0⅛
United Kingdom.	1802	3,310,065	..	16,560,864	0·20	1 8½
	1812	3,775,169	..	18,812,294	0·20	2 8
	1821	2,324,315	..	21,193,458	0·11	1 6
	1831	3,624,597	..	24,029,702	0·15	1 4
	1838	3,135,651	..	25,907,096	0·12	1 0½
	1841	2,277,970	..	26,711,694	0·09	0 9½

FOREIGN SPIRITS.

	Years.	Gallons.	Rate of Duty per Gallon.	Average Consumption per Head.	Contribution per Head to the Revenue.
			s. d.	Galls.	s. d.
England.	1802	1,982,790	11 4¾	0·209	2 4¾
	1812	166,018	24 9¼	0·015	0 4½
	1821	969,474	22 7½	0·079	1 9½
	1831	1,217,971	22 6	0·086	1 11¼
	1838	1,176,252	22 6	0·074	1 8
	1841	1,127,849	22 10	0·071	1 7½
Scotland.	1802	356,157	11 4¾	0·219	2 6
	1812	21,305	24 9¼	0·012	0 3½
	1821	34,601	22 7½	0·016	0 4½
	1831	39,744	22 6	0·017	0 4¼
	1838	38,084	22 6	0·014	0 3½
	1841	40,291	22 10	0·015	0 5
Ireland.	1802	92,630	8 6	0·018	0 1¾
	1812	8,280	12 7½	0·001	0 0¼
	1821	9,325	17 3¾	0·001	0 0¼
	1831	10,483	22 6	0·001	0 0¼
	1838	18,238	22 6	0·002	0 0½
	1841	17,964	22 10	0·002	0 0½
United Kingdom.	1802	2,431,577	..	0·150	1 8¼
	1812	195,693	..	0·010	0 3¼
	1821	1,013,400	..	0·049	0 11¾
	1831	1,268,198	22 6	0·050	1 1¼
	1838	1,232,574	22 6	0·045	1 0¼
	1841	1,186,104	22 10	0·044	1 0

has been partially counteracted through the agency of contraband traders; but the remedy thus applied should be considered as the substitution of a greater evil, and one for which the legislature may be held morally responsible because of the temptation which it offers for the commission of crime.

The revenue derived from the consumption of foreign spirits amounted in 1800 to 1,382,718*l.*, when the rate of duty was 11*s.* 1*d.* per imperial gallon. In 1841, with that rate advanced to 22*s.* 10*d.* per gallon, the revenue amounted to no more than 1,354,079*l.*; the sum which it should have yielded, according to the increased rate and the additional population, was 3,840,279*l.*, being 2,465,767*l.*, or 179 per cent. beyond the amount really collected.

The duty on foreign spirits was reduced in March, 1846, from 22*s.* 10*d.* to 15*s.* per gallon. The effect of this change upon consumption and upon the revenue will appear from the following figures :—

Years.	Gallons Consumed.	Revenue. £.	Years.	Gallons Consumed.	Revenue. £.
1842	1,097,498	1,252,467	1846	1,554,348	1,195,439
1843	1,052,260	1,201,339	1847	1,566,038	1,174,365
1844	1,037,937	1,184,798	1848	1,632,743	1,224,552
1845	1,073,778	1,225,869	1849	2,214,275	1,659,659

The calculations which have been here made concerning the consumption of ardent spirits in this kingdom, so far as it can be shown by the revenue accounts, will afford but little satisfaction to many persons who see an intimate connexion between the degree of that consumption and the moral condition of the people. It appears that, taking into account home-made, colonial, and foreign spirits, the average consumption throughout the kingdom is somewhat greater now than it was at the beginning of the century; and it is hence inferred that the vice of intemperance has gained an accession to the number of its votaries. The particular examination of this subject belongs more properly to another Section of this inquiry, and will not be further entered upon here, except to show that if in the year of the greatest consumption the quantity used had been equally divided among the people, the share of each would have been not quite the tenth part of a gill per diem, a quantity that might be taken with impunity by any one advanced beyond the stage of infancy. It is true there is a very large proportion of people in this country who never taste intoxicating drink; but it is very possible, and, considering the general progress of society as regards the means of commanding conveniences and luxuries, it is even highly probable, that the number who practise this degree of abstinence is continually becoming less: it by no means follows, however, that an absolute and even a great increase in the general consumption of ardent spirits affords certain evidence of increased intemperance. It might even be that the quantity consumed throughout the country should be doubled,

while the general character of the population for sobriety would be improved.

Wine.—Although, as we have seen, the consumption of spirits has increased in a slight degree since the opening of the century, there has not been any corresponding increase in the use of wine, denoting the greater addiction of the people to habits of intemperance. The quantity of all descriptions of wine used in the United Kingdom at different periods, since 1801, has been as follows, distinguishing Great Britain from Ireland:—

Years.	GREAT BRITAIN.			IRELAND.		
	Gallons.	Average Consumption.	Duty per Head.	Gallons.	Average Consumption.	Duty per Head.
		Galls.	s. d.		Galls.	s. d.
1801	5,838,592	0·533	3 7½	1,038,118	0·207	0 9¼
1811	4,884,062	0·387	3 5¼	745,660	0·125	0 10¾
1821	4,180,474	0·290	2 6	520,584	0·076	0 7½
1831	5,454,737	0·335	1 7½	757,527	0·096	0 5¾
1838	6,504,038	0·364	1 9¾	696,838	0·086	0 5¼
1841	5,582,385	0·301	1 7¼	602,575	0·073	0 4¾

The average consumption, and the amount of duty contributed per head, in the whole kingdom, in the same years, were—

Years.	Average Consumption. Gallons.	Duty per Head. s. d.	Years.	Average Consumption. Gallons.	Duty per Head. s. d.
1801	0·431	2 8¾	1831	0·255	1 3¼
1811	0·304	2 7½	1841	0·267	1 4½
1821	0·221	1 10¾			

The rates of duty per imperial gallon have been as follows:—

Years.	GREAT BRITAIN.		IRELAND.	
	French.	Other Kinds	French.	Other Kinds.
	s. d.	s. d.	s. d.	s. d.
1801	10 2½	6 9¾	6 1½	3 11
1811	13 8½	9 1¼	10 6	7 0½
1821	13 9	9 1¼	13 9	9 1¼
1831	5 6	5 6	5 6	5 6
1841	5 6	5 6	5 6	5 6

The extent to which the people of this country are accustomed to the use of wine cannot be considered commensurate with their general power to obtain the conveniences of life. The consumption was, in former times, much greater in proportion to the population than it has been of late years. In 1700 the average annual consumption of each individual in England and Wales amounted to a very small fraction below an imperial gallon, while at present it scarcely exceeds one-fourth of that quantity. There can be but one cause assigned for this change—

excessive duties. In France, where wine may be had in almost every part of the kingdom, at a low price, and where, except a trifling "octroi" levied in the towns, the produce of the vineyard is nearly duty free,—the average annual consumption is equal to rather more than 19 gallons by each individual, or more than seventy times the consumption of the United Kingdom. One effect of our high duties has been to confine importations to the finer kinds of wine, which are consequently within the reach of only the easy classes; to the working man wine is altogether denied. There is a great deal of excellent wine made in Provence and Languedoc, better adapted to the English taste generally than the finest wines of Medoc, and which could be sold, with a good profit to the importer, for less than sixpence per bottle, independent of duty. If the rate of this duty were fixed so low as to admit of the sale by the retailer at one shilling per bottle, it cannot be doubted that the consumption would be very much increased, and that a great addition would be made to the innocent enjoyments of the people. It would still be practicable to levy the present high rate of duty upon wines of the first quality, the production, and necessarily therefore the consumption, of which are limited, independently of the duty. It is said to be impracticable to levy distinct rates of duty upon different qualities of the like article, and that the imposition of a duty according to the value assigned by the importer might open the door widely to fraud; but it has, on the other hand, been suggested that every difficulty of this nature may be obviated by fixing maximum and minimum rates of valuation, within which the declarations of the merchant must be made, and by giving to the officers of the Customs the right to purchase the wine at the usual advance of 10 per cent. upon the declared value, whenever they may consider that value to be much below what the wine is actually worth.

It appears from official accounts printed by the French government, that the quantity of wine made in France in years of ordinary or average production, amounts to 924,000,000 imperial gallons. Of this quantity 24,530,000 gallons are exported to foreign countries, only a very small proportion of which is consumed in this kingdom. The population of Denmark, which does not equal the number of the inhabitants of our metropolis, consume more French wine than the entire population of the United Kingdom. In former times the taste of Englishmen led them to a far greater proportionate use of French wine, but by the ill-judged Methuen Treaty, concluded in 1703, whereby we bound ourselves to impose 50 per cent. higher duties on the wine of France than on that of Portugal, a great change in this respect was gradually brought about, so that the consumption of French wine was in time reduced to a quantity altogether insignificant. The Methuen Treaty ceased to operate in 1831, and thenceforward the duty charged upon wines the growth of

all foreign countries has been equalized. The proportionate consumption of French wine has since increased; but, in a case of this kind, time is required in order to bring about a change in the public taste, and many years will probably elapse before we can expect by any such means to destroy the preference that has long been given to the strong and highly-brandied wine of Portugal.

The quantity of French wine of all qualities sold for consumption in the United Kingdom in each year, since the peace, and the rates of duty chargeable, have been as follows:—

Years.	Gallons.	Per Gallon.	Years.	Gallons.	Per Gallon.
		s. d.			*s. d.*
1815	200,918	13 8½	1833	232,550	5 6
1816	123,567	,,	1834	260,630	,,
1817	145,972	,,	1835	271,661	,,
1818	259,178	,,	1836	352,063	,,
1819	213,616	13 9	1837	438,594	,,
1820	164,292	,,	1838	436,866	,,
1821	159,462	,,	1839	378,636	,,
1822	168,732	,,	1840	341,841	5*s.* 6*d.* & 5 per cent.
1823	171,681	,,			
1824	187,447	,,	1841	353,740	,,
1825	525,579	7 2½	1842	360,692	,,
1826	343,707	7 3	1843	326,498	,,
1827	311,289	,,	1844	473,789	,,
1828	421,469	,,	1845	469,001	,,
1829	365,336	,,	1846	409,506	,,
1830	308,294	,,	1847	397,329	,,
1831	254,366	5 6	1848	355,802	,,
1832	228,627	,,	1849	331,690	,,

The increased rate of consumption in the later years of the series gives no greater proportion than one gallon per annum among sixty people. The consumption of Holland amounts to one gallon per head, the highest government and municipal duty paid in any city of that country being equal to 2*s.* 5½*d.* per gallon. In Amsterdam the duties amount to 8*d.* per gallon, and in Rotterdam wine is consumed free of duty.

Beer.—It would have afforded a more satisfactory view of the progress of consumption with regard to fermented liquors and spirits, if the quantity could have been stated of various kinds of beer used at the different periods in this country chosen for comparison. This it is not possible to do for any period later than 1829, as the beer duty was wholly repealed in 1830, so that a great proportion of what was made

in that year did not enter into the revenue accounts, the only records in which such information can be found.

The number of barrels of strong beer and of table and small beer consumed in England and Wales was,—

Years.	Strong Beer.	Table and Small Beer.	Rates of Duty per Barrel.		
			Strong.	Table.	Small.
	Barrels.	Barrels.			
In 1801	4,735,574	1,691,955	8*s.*	3*s.*	1*s.* 4*d.*
1811	5,902,903	1,649,564	10*s.*	3*s.*	
1821	5,575,830	1,439,970	〃		
1829	6,559,210	1,530,419	9*s.*	1*s.* 11½*d.*	

The produce of the duty on the above quantities, and the average consumption and amount of duty paid per head in England and Wales, were,—

Years.	Produce of Duty.	Average Consumption.	Average Amount of Duty.
	£.	Gallons.	*s.* *d.*
1801	2,048,695	24·76	4 4½
1811	3,116,407	25·19	5 9¼
1821	2,931,912	20·53	4 9¼
1829	3,217,812	21·10	4 8

These figures do not afford a true statement of the consumption of beer by the people, because the duty was paid, and consequently the account was taken, only with reference to that which was brewed for sale, no duty having ever been charged on beer brewed in private families. It was proposed, in the budget brought forward by Lord Henry Petty in 1807, to subject private families equally to payment of the duty; but such was the amount of selfish clamour raised against this proposal, that it was necessarily abandoned. It would no doubt have been an exceedingly vexatious thing for private families to be subject to the visitation of Excise-officers, and without such surveillance it would not have been possible to prevent a very general evasion of the tax; but this objection leaves untouched all considerations arising from the glaring injustice of the tax, which was necessarily paid by every poor man in the country who consumed beer, while all other classes had the means of relieving themselves from the burthen. There can therefore be no question that the tax as levied was bad in principle, and that the Government acted properly in repealing it. The measure, when brought forward, was popular with all parties; with the labouring classes because of its cheapening one of their chief luxuries, and with the members of the legislature because of the rise which, under the then existing Corn Law, it necessarily occasioned in the prices of some kinds of farming produce.

The duty on beer in Scotland has, since the Union in 1707, been the same as was charged in England; but the consumption in that part of the kingdom, which was always greatly below the proportion in England, has been comparatively insignificant during the last half century. The number of barrels charged with duty in Scotland, in 1829, was 366,166, of which 247,443 barrels, or two-thirds, were small beer. The yearly consumption of both qualities amounted therefore to 5¼ gallons for each inhabitant, and the duty paid by each averaged 8*d.* It has been shown that the difference in this respect between England and Scotland is compensated by the greater use of spirits in the latter division of the kingdom. No duty was ever charged on beer in Ireland.

Since 1785 brewers of beer for sale have been obliged to take out an Excise license, for which they have been subjected to an annual payment in proportion to the quantity brewed. This system of obliging manufacturers of, and dealers in, commodities chargeable with Excise duties to take out licenses, was adopted with the twofold object of bringing the parties more directly under the survey of the revenue officers with the view of preventing frauds, and of adding directly to the public revenue by means of the charge made for the license. There have been so many changes made in the regulations, whereby additional classes have at various times been embraced, and the charges made for licenses have been so altered, that it would not afford any information concerning the progress made in this branch of manufacture to state the number of licenses that were taken out in different years. Some information on this subject has been given in a former Section of this work, when treating of the "occupations of the people." *

* Pages 67 and 68.

CHAPTER V.

TOBACCO. Consumption at different Periods—Effects of increased Duties—Encouragement to Smuggling—Complaints of high Duty on the part of the Producers in the United States of America—Threatened Retaliation — Probable consequence of such a course. PAPER. Quantity made for use at different periods—Injudicious Nature of the Tax on this Article—Growing Use of Paper—Effect of Reduction of Duty—Rapid Extension of Sale by Repealing the Duty on Almanacs. SOAP. No means of distinguishing its Use for Personal Purposes from that caused by Manufacturing Processes—Frauds caused by the Duty—Impolicy of Imposing a Duty on Soap—Mischief of Excise Regulations—Annual Consumption of Soap at various Periods. CANDLES. COTTON MANUFACTURES. Estimated Consumption. SILK MANUFACTURE. Estimated Consumption—LINEN AND WOOLLEN MANUFACTURES. Difficulty of estimating the Value used. IRON. Increased Use of this Material for Ship-building. COPPER. Quantity used. TIN. TIMBER. Quantity imported for use in different Years afford insufficient data for estimating the use of Timber generally—Consumption of the Metropolis—Cattle—Sheep—Coals—Gas Lighting—Consumption of Food in Private Families.

Tobacco.—THE quantity of this plant upon which consumption duty is paid is considerably less at the present time, taking the kingdom throughout, and making allowance for the increased population, than it was at the beginning of the present century. This fact is clearly attributable to the increase made in the rate of duty. In great towns, and among the easy classes, and especially among our young men, whose expenditure is least likely to be carefully regulated as regards minor luxuries, the smoking of tobacco is probably much greater now than it has been at any earlier period. The falling off in the consumption is principally experienced in Ireland, where the smoking of tobacco has long been a chief luxury among the working classes, and where, considering the few comforts that usually fall to their lot, its diminution betokens a great degree of privation. Contrasting 1839 with 1801, it will be seen that the average use of tobacco in Ireland is only one-half what it was at the beginning of the century; and, although the rate of duty is now about three times what it was in 1801, the contribution per head to the revenue has advanced only 75 per cent. In Great Britain, where the condition of the people generally has been more satisfactory than in Ireland, the consumption per head is now about equal to what it was at the beginning of the century, and the contribution to the revenue has consequently been more in agreement with the increased rate of the duty.

	Years.	Pounds Weight consumed.	Duty per Pound.	Amount of Duty.	Average Yearly Consumption.	Average Contribution to the Revenue.
		lbs.	s. d.	£.	ozs.	s. d.
GREAT BRITAIN.	1801	10,514,998	1 7$\frac{6}{10}$	923,855	15·37	1 8$\frac{1}{2}$
	1811	14,923,243	2 2$\frac{3}{10}$	1,710,848	18·95	2 8$\frac{1}{2}$
	1821	12,983,198	4 0	2,600,415	14·43	3 7$\frac{1}{2}$
	1831	15,350,018	3 0	2,338,107	14·84	2 9$\frac{1}{2}$
	1841	16,830,593	..	2,716,217	14·52	2 11$\frac{1}{2}$

It is made evident by these figures that the duty of 4*s.* per lb. was excessive. The advance to that rate from 2*s.* 2*d.* caused a diminished consumption to the extent of one-fourth, and the revenue per head which, had the consumption not been lessened, would have been 4*s.* 10½*d.*, amounted to only 3*s.* 7$\frac{3}{8}$*d.*

	Years.	Pounds Weight consumed.	Duty per Pound.	Amount of Duty.	Average Yearly Consumption.	Average Contribution to the Revenue.
		lbs.	s. d.	£.	ozs.	s. d.
IRELAND.	1801	6,389,754	1 0$\frac{7}{10}$	285,482	18·95	1 0$\frac{3}{4}$
	1811	6,453,024	1 7	552,082	17·35	1 10$\frac{1}{4}$
	1821	2,614,954	3 0	528,168	6·15	1 6$\frac{1}{2}$
	1831	4,183,823	3 0	626,485	8·61	1 7$\frac{1}{4}$
	1841	5,478,767	3 0	863,946	10·71	2 0
UNITED KINGDOM.	1801	16,904,752	..	1,209,337	16·05	1 5$\frac{3}{4}$
	1811	21,376,267	..	2,262,930	18·44	2 5$\frac{1}{4}$
	1821	15,598,152	..	3,122,583	11·77	2 11$\frac{1}{2}$
	1831	19,533,841	..	2,964,930	12·85	2 5$\frac{1}{4}$
	1841	22,309,360	..	3,580,164	13·36	2 8

The yearly consumption of tobacco in the United Kingdom has since 1841 been as follows:—

Years.	lbs.	Years.	lbs.
1842	22,238,484	1846	26,859,788
1843	23,012,627	1847	26,638,136
1844	24,595,791	1848	27,194,368
1845	26,162,159	1849	27,553,158

One great evil that attends upon exorbitant taxation on this article of consumption, is the encouragement that it gives to smuggling. The amount of the duty is so vastly out of proportion to its value, that the contraband dealer can afford to lose several ventures if he can succeed in safely disposing of one. The number of those successful ventures there are, of course, no means for ascertaining; but it appears from a return made to the House of Commons, that the number of persons *convicted* for smuggling tobacco in the three years, 1843 to 1845 inclusive, was—

In England	2,187
„ Ireland	435
„ Scotland	389
	3,011

The high rates of duty charged on tobacco in various European countries have been felt as a grievance by some of the States of the

American Union, and threats have sometimes been used, that unless an alteration be made in those rates, retaliatory measures would be taken, and heavy duties placed upon some of the staple manufactures of Europe when imported into the United States. This very ineffectual, but by no means uncommon method of meeting the case, has in recent years been adopted by the American Congress. The result of the existing tariff of the United States in all probability has been to limit the sales as well as the purchases of America, and instead of causing an increased vent for tobacco, to diminish it by lessening the means which foreigners have for buying.*

Paper.—It would give a very wrong view of the progressive use of paper in the several divisions of the kingdom, if the calculations were made from the produce of the duty in those divisions. The manufacture of paper is carried on in certain localities, whence it is distributed over every part of the kingdom, so that English-made paper finds its way to Scotland and Ireland. The Parliamentary volumes do not contain any statement of the quantity of paper brought to charge with the Excise earlier than 1803 in the present century, which year is therefore inserted in the following comparison, instead of 1801.

Years.	Pounds of Paper Charged with Duty.	Amount of Revenue.	Revenue paid by each Individual.	Duty per lb. on First Class Paper.
	lbs.	£.	d.	d.
1803	31,699,537	394,824	5¾	3
1811	38,225,167	477,414	6¼	3
1821	48,204,927	579,867	6¼	3
1831	62,738,000	728,860	7¼	3
1841	97,103,548	637,254	5¾	1½

The duty on paper was first imposed in 1711 by the Act 10 Anne, c. 19, which recites, as a reason for the tax, "the necessity of raising large supplies of money to carry on the war," and surely it required a case of strong necessity to justify the imposition of a tax which tended so directly to impede the progress of knowledge among the people. That it must have had this effect is evident from the statement here given. While the duty on first-class paper, which includes writing and printing paper, was continued at 3*d.* per lb., the increased quantity used was, considering the increase of the population, very insignificant. The quantity used at the different periods, if equally divided among the population, would have been—

Years.	lbs.	Years.	lbs.
1803	1·92 for each individual.	1831	2·54 for each individual.
1811	2·06 „	1838	3·47 „
1821	2·27 „	1839	3·58 „

* An illustration of this position, in the words of Dr. Franklin, will be seen, p. 501.

The reduction of the duty took effect only in October, 1836, and could not be expected to have produced its full effects for some years thereafter. The degree in which it has already stimulated consumption may be seen from the following account of the quantities used in each of the sixteen years, 1834 to 1849, viz.—

Years.	lbs.	Years.	lbs.
1834	70,605,889	1842	96,693,322
1835	74,042,650	1843	103,449,623
1836	82,108,947	1844	109,495,148
1837	88,950,845	1845	124,247,070
1838	93,466,286	1846	127,442,480
1839	97,643,823	1847	121,965,312
1840	97,237,358	1848	121,820,227
1841	97,103,548	1849	132,132,657

Previous to 1836 the paper duty was charged on two classes or qualities, of which the first class paid 3*d.*, and the second class 1½*d.* per lb. Not any change has been made in the rate charged on the second-class paper, but the duty on the first class has been assimilated to it, and thenceforward the Excise officers have not made any distinction between the two qualities. The duty having been continued at the same rate upon common paper, it is not likely that much increase in the quantity used will have taken place; but, if we even calculate that an increased quantity, to the amount of 10 per cent., has been used since 1835, this would leave 31 per cent. increase upon first-class paper in little more than two years from the reduction of the duty. That the progressive increase experienced up to 1839 was not continued for the three years beyond that year, is no doubt attributable to the condition of commercial stagnation, which lessened the power of expenditure among a large class of persons who can economise in the purchase of books without exciting the attention of the circle in which they move. From 1843, it will be seen that the stagnation having passed away, the use of paper has again been increasing, so that the quantity used in 1849 exceeded that used in 1835 by more than 78 per cent.

There is reason for supposing that the public may hereafter obtain, more even than hitherto has been the case, advantages from the reduction of this duty. The sudden demand consequent upon the alteration in 1836 caused for a time an increase in the price of the principal materials of which paper is made, but this advance has not since been maintained; and there can be no doubt that, stimulated by the higher price, larger quantities of those materials will find their way to the English market; or, what is equally probable, that other materials may be found applicable to the purpose, and at a lower price, so that the cost of paper may in time be reduced in even a greater proportion than has hitherto followed the reduction in the rate of duty.

The number of licenses taken out by paper manufacturers has been as follows:—

Years.	England.	Scotland.	Ireland.	Total.
1801	413	33	No account kept in Ireland.	
1811	527	48		
1821	564	55	47	666
1831	507	54	59	620
1841	370	49	48	467
1845	381	45	47	473
1849	349	48	40	437

The price per ream of printing paper, of one particular description, has been,—

Years.	s.	d.	Years.	s.	d.
1801	36	0	1831	24	0
1808	40	0	1841	17	0
1811	35	0	1843 (January)	15	6
1821	27	6			

The effect of high duties in limiting the use of books may be inferred from the rapid extension caused to the sale of almanacs through the repeal of the stamp-duty of 1*s.* 3*d.* It was stated in the Report of the Commissioners of Excise Inquiry, that 200 new almanacs were started immediately upon the repeal, of some of which upwards of 250,000 copies were sold within a short period, although the old ones maintained their ground; and Moore's Almanack for the year 1835 is stated to have actually doubled its former sales.

Some part of the increased manufacture of paper must be ascribed to the great reduction made, in 1836, in the stamp-duty on newspapers, the effect of which will be more fully described in a future section of this volume.

Soap.—The use of this article is in some degree dependent on the growth of manufactures, since it is extensively employed in many processes, and in this country is increasingly so employed; the actual consumption for personal and household purposes cannot therefore be accurately known without first ascertaining the quantity otherwise disposed of, no particular statement of which has been given in any Parliamentary papers. An allowance is made for the duty on soap used in the silk, woollen, cotton and linen manufactures; but these do not comprise the whole of the manufacturing processes into which soap enters. It is, besides, impossible to make any true estimate of the quantity used generally, because of the intervention of the contraband maker. It is known that frauds upon the revenue are thus committed to a great extent, not so much perhaps as was done before the reduction of the duty in 1833; but the degree in which that reduction was calculated to affect the fraudulent maker by reducing his profits, has been since in part countervailed by simplifications in the process, which have lessened at once the expenses of the manufacture and the chances of detection. That frauds to a great extent are committed by the surreptitious production of soap, may be believed from the fact, that there are 50 persons in England who each take out an annual license, the charge for which is 4*l.*, and who do not pay duty to the Excise on a greater

quantity than one ton in the course of the year, leaving room for suspicion that the license is used as a cover for fraudulent processes. There are besides great numbers of persons who make soap secretly, and without taking out any license, and who consequently pay no duty whatever. The manufacture can be successfully carried on in any cellar or small room, with very inartificial apparatus; and so long as the rate of the duty offers any temptation, it is much to be feared that there will always be persons in whom the desire of gain will be strong enough to lead them to engage in such secret manufacture. It appears doubtful whether it can ever be desirable to extract a revenue from soap, the use of which among the people should be encouraged on moral considerations, and which should also lead the legislature at all times to withdraw from those contests with breakers of the law, in which the Government is sure to be worsted. The Excise duty charged upon soap in Great Britain is not levied in Ireland.

The Excise regulations, which it may be presumed are necessary for the protection of the revenue, so entirely prevent improvement in the processes, that the quality of soap made in foreign countries, where no such regulations are imposed, is invariably superior to that of English soap, and, unless to our own colonies and dependencies, we cannot be said to have any export demand for British-made soap. We pay an import duty on the chief ingredient used in the manufacture, which is not returned on that part which is exported, and our duties are so regulated that our manufacturers are in a great degree restricted to the employment of a material which is not calculated to produce soap of the finest quality. The manufacturers of Marseilles use almost exclusively vegetable oil, while ours are chiefly restricted to the use of tallow, which produces an article so inferior in quality that the preference is given in foreign countries to almost any soap over that made in this kingdom; and this is especially the case where the article is used in manufacturing processes.

After these remarks it will be understood that the following statement regarding the use of soap is not to be taken as correct, although it is as much so as public documents will admit:—

Years.	Number of Pounds of Soap Consumed.	Rate of Duty.	Quantity Consumed per Head.	Amount of Duty Contributed per Head.	Number of Licensed Makers.
			lbs.	s. d.	
1801	52,947,037	$2\frac{1}{2}d.$ per lb. hard $1\frac{3}{4}d.$ „ soft	4·84	0 $11\frac{1}{2}$	624
1811	73,527,760	Ditto	5·83	1 $1\frac{1}{2}$	522
1821	92,941,326	$3d.$ per lb. hard $1\frac{3}{4}d.$ „ soft	6·43	1 $7\frac{1}{4}$	363
1831	103,121,577	Ditto	6·23	1 $6\frac{3}{4}$	532
1841	170,280,641	$1\frac{1}{2}d.$ per lb. hard $1d.$ „ soft	9·20	1 $1\frac{3}{8}$	344
1845	190,187,163	Ditto	9·65	1 $2\frac{3}{4}$	356
1849	197,632,280	Ditto	9·71	1 $2\frac{3}{4}$	333

The progressive decrease in the number of licensed makers, until they are now little more than one-half as many as in 1801, is a very remarkable circumstance, and one for which it is difficult to assign a sufficient reason.

Candles.— The quantities of different kinds of candles used in England and Scotland, at different periods in the present century, were as follows :—

	Years.	Tallow.	Wax.	Spermaceti.	Total.
		lbs.	lbs.	lbs.	lbs.
England.	1801	62,854,082	549,385	47,011	63,450,478
	1811	73,166,119	633,942	103,469	73,903,530
	1821	88,951,626	697,196	115,647	89,814,469
	1829	109,425,509	744,536	303,683	110,473,728
Scotland.	1801	3,548,602	..	..	3,548,602
	1811	4,737,025	..	..	4,737,025
	1821	4,864,720	..	..	4,864,720
	1829	5,731,299	1,516	..	5,732,815
Great Britain.	1801	66,402,684	549,385	47,011	66,999,080
	1811	77,903,144	633,942	103,469	78,640,555
	1821	93,816,346	697,196	165,647	94,679,189
	1829	115,156,808	746,052	303,683	116,206,543
	1830	155,586,192	1,265,113		116,851,305

The rates of duty throughout the whole period were, on candles made of tallow, 1*d.* per lb.; made of wax or of spermaceti, 3½*d.* per lb. No Excise duty on candles has ever been charged in Ireland. The amount of revenue in the above years from this source was as follows :—

Years.	£.	Years.	£.
1801	275,660	1829	489,059
1811	328,892	1830	482,413
1821	395,911		

The duty on candles ceased from the 1st January, 1832. The Act by which it was repealed was passed in September, 1831, and materially influenced the amount of the manufacture during the last quarter of that year, since no one, with the knowledge of its ceasing, would make a greater quantity than would be required for use during the continuance of the duty. For this reason the quantity returned to the Excise in 1831 was only 103,374,860 lbs., and the revenue 470,659*l.*

During all the time that an Excise duty was levied upon candles, it may be said that there was no improvement made in their quality; and it is probable that had the duty not been repealed the regulations enforced by the revenue officers would have continued to prevent any such improvements. No sooner, however, were the manufacturers relieved from the restraints thus imposed, than their ingenuity was set to work, and each year that has since elapsed has produced one or more inventions or combinations, whereby the essential good qualities of candles

have been increased, and their cost, relatively to their value in use, diminished.

Woven Fabrics.—The statements already given in these volumes, in describing the progress of some of our chief manufactures, make it unnecessary to go into much detail in regard to the consumption of woven fabrics. The rapid and enormous increase which has been exhibited in these branches of our industry must serve to convince everybody who at all considers the subject how impossible it is to fix any limit to the powers of consumption under circumstances favourable to their development, and how unreasonable it must be to suppose that any degree of extension to which we may hitherto have arrived can be taken as the measure of what, under higher degrees of prosperity, may hereafter be attained.

In a manufacture like that of cotton, where the goods produced differ so exceedingly in quality that the value of a pound weight varies from a few pence to a great many shillings, it is extremely difficult to make an approach even to the capital employed and the value produced in the course of the year. In the statement made by Mr. M'Culloch, in his 'Commercial Dictionary,' already quoted in this work,* the entire annual value of the manufacture is given as 36,000,000*l.* Mr. Baines made the value 31,338,693*l.* in the year 1833, when the weight of material used was 282,000,000 lbs. Of this value the part exported amounted to 18,459,000*l.*, leaving for the goods consumed at home 12,879,693*l.* If we were to follow the same mode of calculation for the year 1849, making the increased value proportionate to the increased quantity of the raw material employed, the value of cotton goods used at home would be as follows:—

	£.
775,000,000 pounds of cotton taken by the manufacturers, assuming the cost and the charges of manufacturers to be the same per pound as in 1833, would amount to	86,125,840
From which deduct the value of yarn and goods exported . . .	26,775,135
Leaving for home use	£59,350,705

This estimate is certainly much beyond the truth, but is so either because of the adoption of further improvements in the manufacturing processes, which, by reducing their cost, have placed this description of fabrics more within the reach of the labouring classes in this and other countries, or because of the depressed condition of a large part of the labouring classes, which has obliged them to buy coarser and lower-priced articles.

It does not appear, from the statement of our exports, that any very great economy was introduced into the manufacturing processes of

* Page 212.

cotton between 1833 and 1841. It may certainly be that the quality of the goods shipped to foreign countries has been better in the latter than it was in the former year; but if this were not the case, the difference in the cost did not much, if at all, exceed 10 per cent., calculated on the prices of 1833. In that year the number of yards of cotton cloths exported was 496,352,096, and the declared value 12,451,060*l.*, or a very small fraction over 6*d.* per yard. In 1839 the number of yards shipped was 731,450,123, and the declared value 16,378,445*l.*, being on the average 5½*d.* per yard, or five-eighths of a penny less than in 1833. In 1849, the exports amounted to 1,337,536,116 yards, the declared value of which was 18,794,964*l.*, and this shows only an average value of 3·37*d.* per yard. The diminished cost which appears by these figures is, however, greatly the result of reduction in price of the raw material.

If the value of cotton goods consumed within the kingdom in 1840 bore the same proportion to the whole manufacture as the calculation of Mr. Baines assigns to the consumption of 1833, then the value of the 531 millions of pounds used in 1840 could not have been much beyond 41 millions of money; so that while the quantity of the material was increased 88 per cent., the value was increased at the rate of only 33 per cent. It may help to explain this difference, without assuming that the processes of manufacture have been economised to the extent just mentioned, if we call to mind the fact that, whenever the means of the people are limited, their purchases, where necessaries are concerned, are made of coarser and therefore heavier goods; so that in times of comparative distress there may be a larger consumption of the raw material, accompanied by an abridgment of the labour employed, and a diminished value of the goods produced.

The progress of the silk manufacture, and of the use of fabrics of that material in this country, up to the year 1849 inclusive, have already been stated.*

The value of silk goods produced cannot be estimated on an average below 60*s.* per lb.; the sum annually spent on these fabrics within the kingdom is therefore considerably above 15,000,000*l.*, if we include those imported of foreign manufacture. In the early years of the century the expenditure under this head was not more than one-fourth part of that sum; and although the use of silk garments had greatly increased at the time when the restrictions were removed under which the manufacture had been kept, with a view to its encouragement, yet the yearly value did not amount to one-half that of the present consumption.

The quantities of our linen goods that are used within the kingdom

* Page 215.

can only be conjectured, since the materials employed are in great part of domestic production, and no means exist for determining their quantity. The improvements already noticed in the spinning of flax have most importantly reduced the price of our linens; but as a reduction fully as great has been effected in the cost of cotton goods, it is doubtful whether the use of linen has been therefore much or at all increased. There is from year to year an increased demand on the part of our manufacturers for foreign-grown flax; and its consequent enhancement of price occasions much dissatisfaction to the linen weavers of Belgium, whence our chief supply of fine flax is drawn. Concurrently with this state of things, our exports of linen have very greatly increased, and may have absorbed all the additional quantity of material; but this is a question which it is not possible in any way to determine.

The remarks here made concerning linen apply in great part to woollen goods also. There is a continually increasing importation of the raw material from abroad, but we are left wholly to conjecture concerning the home production. As in the linen manufacture, the processes used by our clothiers have also been economised, and the prices of their goods have been much reduced; but increased consumption, which, under other circumstances, would be the almost necessary consequence, may not have been experienced beyond that required by our greater numbers, because of the still greater cheapening of other articles which may be in great part substituted for woollen garments.

Iron.—The increased use of iron in this country during the present century has been truly extraordinary. The importations of this metal at the beginning of this century amounted to about 40,000 tons yearly, and the quantity made at home was under 150,000 tons. It was given in evidence, by Sir John Guest, before the Committee of 1840 on Import Duties, that in the year 1806 the quantity of iron made in the kingdom was increased to 258,000 tons; that in 1823 the quantity produced was 452,000 tons; in 1825 it had reached 581,000 tons; and in 1828 the quantity was 703,000 tons.

A fresh impulse has since been given to this branch of manufacture through the great actual and projected extension of railways. There has not been any statement put forth showing the quantity of iron made in England in 1849; but a careful account of the make in Scotland has been drawn up, from which it appeared that there were then 113 furnaces in blast, producing 13,800 tons of iron weekly, or at the rate of 690,000 tons in the year of 50 weeks.

Assuming the data of Sir John Guest * for the quantity of this metal made within the kingdom, and using Parliamentary Returns for

* See page 268.

the quantities imported and exported, we arrive at the following result as relates to home consumption, during the years just mentioned:—

Years.	British Iron made.	Foreign Iron used.	British Iron Exported.	Hardware Exported.	Remained for Home Use.
	Tons.	Tons.	Tons.	Tons.	Tons.
1806	258,000	27,411	36,925	4,629	243,857
1823	452,000	9,667	46,413	10,375	404,879
1825	581,000	14,977	34,372	10,980	550,625
1828	703,000	13,984	65,139	12,100	639,745
1835	1,000,000	17,571	199,007	20,197	798,367
1836	1,200,000	18,920	192,352	21,072	1,005,496
1840	1,500,000	13,263	268,328	14,995	1,229,940
1841	1,500,000	17,653	360,875	17,667	1,139,111
1842	1,200,000	14,741	369,398	15,212	830,131
1843	1,200,000	12,069	448,925	17,183	745,961
1844	1,400,000	21,599	458,745	22,552	940,302
1845	..	30,840	344,963	20,754	..
1846	..	30,539	424,858	19,616	..
1847	1,999,608	28,264	539,922	20,614	1,467,336
1848	2,093,736	20,437	619,230	18,105	1,476,838
1849	..	26,537	701,396	23,421	..

This rapid and great increase, shown in the last few years, has been in some part caused by the economy introduced through the use of the hot-blast in smelting, a process which has materially lowered the cost of iron, and therefore has led to its employment for many purposes in which its use was previously unknown.

Among the new employments found for this the most useful of all metals, must be mentioned ship-building. Iron was first used about the year 1810 for the construction of vessels employed in canal and river navigation. After this, the first similar employment of this material occurred in 1820, when a steam-vessel called the "Aaron Manby" was constructed at the Horsley Iron-works, and made the voyage between the capitals of England and France without unlading any part of her cargo. This vessel is still in good condition, although 30 years old, never having required any repairs to her hull. In 1825 a small iron steam-boat was placed on the river Shannon, where she is now employed, in good condition. In 1832, "The Elburkah," an iron steam-vessel, built by Messrs. Macgregor Laird and Co., in Liverpool, made the voyage from that port to the coast of Africa, and twice ascended the river Niger. This successful experiment led to the construction of many other iron steam-vessels. One builder, Mr. John Laird, of Birkenhead, near Liverpool, has built 45 iron vessels of the aggregate burden of 12,600 tons. The total number launched since 1830 is said to be near 200. The largest iron vessel, with one exception, yet finished, and in use, is believed to be the "Guadaloupe," a steam-frigate of 788 tons, carrying 68 pounders, and belonging to the Mexican government; but her dimensions are insignificant when compared with those of the "Great Britain," since built at Bristol.

The length of this vessel, from her figure-head to the tafferel, was	320 feet.
The breadth of beam	51 „
The depth of her hold	31 „
Her draft of water, when loaded, was calculated to be	16 „

and her burden 3500 tons. The engines had a force equal to that of 1000 horses, and were used to keep in action, as the means of propulsion, an Archimedean screw. Her draft of water did not exceed that of a first-class West Indiaman. The loss of this splendid ship in Dundrum Bay was a casualty which might equally have happened to any other vessel, and should not in any degree lessen our estimate of the genius and skill of those by whom she was projected and put together.

A great part of the steam navy of the East India Company consists of iron vessels, 25 of which are now in use in India, among which are the "Nemesis," the "Phlegethon," the "Ariadne," and the "Medusa," —names well known to the British public from the conspicuous part which the vessels performed in the war with China.

The advantages of iron over timber, for naval architecture, are,—the absence of "wear and tear" in the hull—no necessity for caulking or coppering—no possibility of injury from dry rot—greater lightness and increased capacity—and, what is of even far more importance, greater safety. This last point has sometimes been questioned, but not by any one having knowledge on the subject. When a timber-built ship takes the ground with any violent shock, the whole framework of the vessel is strained, and in a measure dislocated,—so that by the mere buffeting of the waves she will, in all probability, soon be made a complete wreck; but when an iron-built vessel strikes, however violent the blow, it is only the part that is brought into collision with the rocks that will be injured. The plan of building these ships in water-tight compartments then proves its efficacy; for should the injury amount even to the tearing away of plates, the resulting mischief will only be to fill with water that particular compartment of the vessel to which the injury has occurred, so that the ship will be scarcely less buoyant than before; experience has shown that damage of this kind is easily repaired.

The first cost of iron vessels is somewhat, but not much, less than that of timber-built vessels: their comparative cheapness results from their greater durability: after years of constant employment they are found to be as sound and as clean as when first built. Their weight, upon which depends the displacement of water, is—as a general rule—three-fifths the weight of wooden vessels of the same capacity. The weight of metal used in proportion to the burden of the ship varies, of course, with the size. A sea-going iron steam-vessel will take from nine to twelve cwts. of iron per ton register. Boats intended for river traffic, which do not require an equal degree of strength, of course take a less weight of metal.

The building of iron ships is fast becoming an important branch of

national industry; it is one in which our mineral riches and our great mechanical skill will secure to us a virtual monopoly.

The average price of pig-iron of the same quality in Glasgow, in each year from 1835 to 1849, was as follows:—

Years.	Per Ton. £. s. d.	Years.	Per Ton. £. s. d.
1835	4 2 6	1843 (Jan.)	2 15 0
1836	6 13 0	1844	2 14 0
1837	4 12 0	1845	4 0 0
1838	4 10 0	1846	3 12 0
1839	4 5 0	1847	3 5 0
1840	3 18 0	1848	2 4 6
1841	3 7 6	1849	2 6 0
1842	2 10 0		

The selling price of English merchant bar-iron in Liverpool, at the beginning of each year from 1806 to 1849, was as under:—

Years.	Per Ton. £. s. d.	Years.	Per Ton. £. s. d.
1806	17 10 0	1828	9 0 0
1807	16 0 0	1829	7 15 0
1808	15 0 0	1830	6 12 6
1809	15 10 0	1831	6 5 0
1810	14 10 0	1832	6 5 0
1811	15 0 0	1833	6 5 0
1812	14 0 0	1834	7 15 0
1813	13 0 0	1835	6 10 0
1814	13 0 0	1836	10 10 0
1815	13 5 0	1837	10 10 0
1816	11 10 0	1838	9 15 0
1817	8 15 0	1839	10 5 0
1818	13 0 0	1840	9 0 0
1819	12 10 0	1841	8 0 0
1820	11 0 0	1842	6 10 0
1821	9 0 0	1843	5 5 0
1822	8 0 0	1844	4 15 0
1823	8 10 0	1845	6 10 0
1824	8 15 0	1846	9 15 0
1825	14 0 0	1847	10 0 0
1826	11 0 0	1848	8 0 0
1827	10 0 0	1849	6 0 0

Copper.—The quantity of copper used at different periods during the present century has been as follows, if we assume that which is not strictly true in any individual year, but which must be true taking one year with another, viz.:—That the quantity remaining of the whole produce, after the shipments to foreign countries are deducted, is used at home. The produce of all the copper mines in the kingdom is not known for any year earlier than 1820 nor later than 1840; but as the quantity raised from mines other than those of Cornwall has been usually equal to one-fifth of the produce of the Cornish mines, that proportion has been added to the accounts of Cornish copper, in order to form a total.

Years.	Copper Raised.	Exported.	Retained for Use.	Years.	Copper Raised.	Exported.	Retained for use.
	Tons.	Tons.	Tons.		Tons.	Tons.	Tons.
1801	6,318	4,825	1,493	1825	10,358	3,931	6,427
1802	6,274	6,348	..	1826	11,093	4,799	6,294
1803	6,739	4,554	2,185	1827	12,326	7,171	5,155
1804	6,450	2,935	3,515	1828	12,188	6,206	5,982
1805	7,481	3,007	4,474	1829	12,057	7,976	4,081
1806	8,234	2,343	5,891	1830	13,232	9,157	4,075
1807	8,059	3,374	4,685	1831	14,685	8,530	6,155
1808	8,154	3,028	5,126	1832	14,450	9,730	4,720
1809	8,185	3,458	4,727	1833	13,260	7,811	5,449
1810	6,818	2,902	3,916	1834	14,042	8,886	5,156
1811	7,137	2,413	4,724	1835	14,474	9,111	5,363
1812	8,697	3,334	5,363	1836	15,369	8,076	7,293
1813	9,789	Records destroyed.		1837	15,310	7,129	8,181
1814	9,523	3,035	6,488	1838	13,958	7,459	6,499
1815	8,028	5,099	2,929	1839	14,672	7,687	6,985
1816	8,454	5,207	3,247	1840	13,022	7,524	5,498
1817	7,299	6,647	652	1841	12,884	5,926	6,958
1818	8,057	6,077	1,980	1842	..	9,703	..
1819	8,657	4,824	3,833	1843	..	5,875	..
1820	8,127	6,098	2,029	1844	14,841	5,586	9,255
1821	10,288	6,271	4,017	1845	14,939	6,867	8,072
1822	10,018	5,683	4,335	1846	14,955	5,057	9,898
1823	9,679	5,326	4,353	1847	13,785	6,221	7,564
1824	9,705	5,305	4,400	1848	14,720	..	..

In 1848 and subsequently, foreign copper-ore has been admitted at a nominal duty, without regard to the proportion of metallic copper which it contains. This metal, when smelted, is treated, as regards fiscal regulations, as a British manufacture, and as such is not distinguishable from copper raised within the kingdom, so that it has become impossible to continue the above table beyond the year 1847.

If the quantities are distributed into decennary periods, it will be seen that the average quantity yearly retained for use was:—

Years.	Tons.
1801 to 1810	3,694
1811 „ 1820	3,472
1821 „ 1830	4,912
1831 „ 1840	6,290

Tin.—It is not possible to furnish any correct account of the quantity of tin retained for home use, because there are no means whereby we can ascertain the quantity of that metal which is used in the manufacture of various articles exported.

Timber.—The use, at different epochs, of timber, an article of such general application, exhibits forcibly the comparative progress and industry of a people. In the years chosen for the exemplification of our condition in those respects, as shown by the consumption of some principal articles of use and consumption, the quantity of "timber eight inches square and upwards," of colonial and foreign growth, used in the United Kingdom, was as follows:—

Years.	Colonial.	Foreign.	Total.	
1801	3,039	158,770	161,809	Loads.
1811	154,282	124,766	279,048	„
1821	317,563	99,202	416,765	„
1831	127,199	418,879	546,078	„
1840	639,014	168,804	807,818	„
1841	613,679	131,479	745,158	„
1842	418,939	108,388	527,327	„

These quantities are exclusive of all kinds except square timber. It would have greatly complicated the account to bring forward the like statements with regard to all the forms under which wood is imported, such as deals, battens, and staves, the quantities of which will most probably vary nearly in the same proportions as timber.

Towards the close of 1842 a different system was adopted for charging the duties on wood, and all kinds, whether square, or sawn and split, have been reckoned in the Custom-house accounts according to their cubic contents. The importations of all forms of timber have since been as follows:—

Years.	Colonial.	Foreign.	Total.	
1843	922,087	395,558	1,317,645	Loads.
1844	941,221	544,136	1,485,357	„
1845	1,281,974	675,840	1,957,814	„
1846	1,214,442	810,497	2,024,939	„
1847	1,089,233	805,918	1,895,151	„
1848	1,085,752	720,696	1,806,448	„
1849	1,070,151	597,364	1,667,515	„

It was predicted by persons engaged in the colonial timber trade, that to lessen the difference between the rates of duty charged upon foreign and colonial timber must prove injurious to them, and therefore hurtful to our North American colonies. Their predictions have happily proved unfounded. It will be seen that although the protective duty in favour of colonial wood has been reduced by progressive steps, from 45*s.* to 14*s.* per load, the colonial trade in the article has very much increased. No good reason can be assigned for the continuance of even this modified protection, and it is hoped that this deformity will before long be removed from the tariff.

It results from these figures that the increase has been—

Between 1801 and 1811, 72 per cent.				{ the increase of population having been }		13½	per cent.
„	1811	„	1821, 49	„	„	„	14¼	„
„	1821	„	1831, 31	„	„	„	14¾	„
„	1831	„	1841, 36	„	„	„	13½	„

Comparing 1801 with 1841, it will be seen, that while the increase of the population is 64½ per cent., the use of imported timber increased 360 per cent.

The great increase, beyond that of all former years, in the consumption since 1845, is evidently the result of diminished duties in concurrence with a period of great and general prosperity.

Much uncertainty must always attend upon computations affecting the consumption of articles which, like timber, are partly furnished from our own soil, and respecting the home production of which we are without any means of calculation.

It is impossible to estimate, with anything approaching to exactness, the consumption of the metropolis. Accounts are given of the number of cattle and sheep sold in the markets, but we should greatly mislead ourselves by taking these accounts alone as our guide in the matter. A large quantity of slaughtered meat is brought for sale to the London markets from various and distant parts of the kingdom, and especially in the winter months, when meat killed at Newcastle and Edinburgh is so brought in great abundance.

The quantity thus conveyed for the consumption of the metropolis by steam-vessels during the cooler season of the year has been ascertained to be as follows:—

From Berwick,	12 tons	weekly for	6	months, chiefly mutton.
Aberdeen,	10	„	6	„
Dundee,	17	„	6	„
Leith,	30	„	7	„
Glasgow,	20	„	7	„
Inverness,	50 tons during the year.			

The steam-vessels from Berwick, Aberdeen, Dundee, and Inverness, bring also large numbers of live stock—oxen, sheep, and swine; and further numbers of these animals are brought by sailing-vessels. On one occasion a steam-vessel from Aberdeen has brought 184 fat bullocks to London.

Even the live animals which are included in the returns do not comprise all which are brought to be slaughtered, many both of oxen and sheep being sold in London and the immediate suburbs before they reach the markets; and, on the other hand, butchers who carry on their business in some of the neighbouring towns are accustomed to attend at Smithfield market to make their purchases. With all this uncertainty, it would be idle to expect that any accurate statement can be offered on this subject.

This difficulty is not experienced in an equal degree with regard to many towns on the continent of Europe, where every article of provisions that enters is subjected to a town-duty or *octroi*, and an accurate account of the quantities must be kept at the barriers. But even in these cases the record cannot be relied on as strictly accurate at all times. It is well known that in Paris, in time of scarcity, when it is more than ordinarily needful for the labouring portion of the population to economise their means of living, many families go beyond the barriers in order to take their meals, and thus avoid the payment of *octroi* duties altogether.

The accounts kept by the Excise officers of the quantities of different

articles sent by permits from the stocks of manufacturers and wholesale dealers, might be supposed to give some idea of the consumption of the district; but the fact is, that London dealers supply great numbers besides the London population, and the records of the Excise officers therefore give a very exaggerated view of the consumption of the metropolis. For the same reason, no inference should be drawn from the quantity of foreign goods cleared for consumption at the London Custom-house, a great part of which goods are afterwards distributed to different places in the kingdom.

Of the Excise duty collected during the years 1837 to 1839 in England, twelve per cent., or very nearly one-eighth, was furnished by the metropolitan district.

The numbers of cattle and of sheep brought to Smithfield market in each of the twenty-nine years from 1821 to 1849 were:—

Years.	Cattle.	Sheep.	Years.	Cattle.	Sheep.
1821	120,125	1,107,230	1836	164,351	1,219,510
1822	142,043	1,340,160	1837	172,435	1,329,010
1823	149,552	1,264,920	1838	183,362	1,403,400
1824	163,615	1,239,720	1839	180,780	1,360,250
1825	156,985	1,130,310	1840	177,497	1,371,870
1826	143,460	1,270,530	1841	166,922	1,310,220
1827	138,363	1,335,100	1842	175,347	1,468,960
1828	147,968	1,288,460	1843	175,133	1,571,760
1829	158,313	1,240,300	1844	186,191	1,609,130
1830	159,907	1,287,070	1845	192,180	1,441,980
1831	148,168	1,189,010	1846	199,875	1,458,820
1832	158,640	1,257,180	1847	220,862	1,438,280
1833	152,093	1,167,820	1848	220,193	1,343,770
1834	162,485	1,237,360	1849	223,560	1,514,130
1835	170,325	1,381,540			

Coals.—The coals brought to London during the same years have increased materially in quantity, owing partly to the introduction of gas-lighting, and partly also to the great extension of the employment of steam-vessels:—

Years.	Tons.	Years.	Tons.	Years.	Tons.
1821	1,744,914	1831	2,053,673	1841	2,902,674
1822	1,667,307	1832	2,149,820	1842	2,754,719
1823	1,936,891	1833	2,014,804	1843	2,663,114
1824	1,982,032	1834	2,080,547	1844	2,563,166
1825	1,921,091	1835	2,299,816	1845	3,461,199
1826	2,103,498	1836	2,399,551	1846	2,975,627
1827	1,874,610	1837	2,629,321	1847	3,302,425
1828	1,893,083	1838	2,582,770	1848	3,479,189
1829	2,095,420	1839	2,638,256	1849	3,380,786
1830	2,116,023	1840	2,589,087		

It is proper, under this head, to notice briefly the invention, or, to speak more correctly, the introduction of gas-lighting, as one of the great economical improvements of the present century. The discovery of an inflammable gas in coal, which might be applied to the purpose of illumination, was made during the seventeenth century, but it was not

until the year 1804 that this discovery was turned to any practical account. In that year, a patent was taken out for an apparatus applicable to the purpose by Mr. Winsor, who, by his lectures and experiments, overcame by degrees the ridicule with which his plans were at first assailed, and prepared the way for the success of other persons having greater scientific and mechanical knowledge than himself.

This invention was first applied to the lighting of cotton-mills and other manufactories, but was soon largely adopted in London and the chief provincial towns in the kingdom. At this time, although not more than forty years have elapsed from its first successful introduction, gas-lighting is employed in every town of importance in England and Scotland, and in many of the larger towns of Ireland. It has not been possible to obtain any minute data for estimating the quantity of coals now applied to this purpose in the United Kingdom, but it is probably within the truth to say that the annual consumption in all the gas establishments amounts to between 500,000 and 600,000 tons.

It appears worthy of remark, that, notwithstanding this large consumption, which has in a great degree superseded the use of oil for street-lighting, the aggregate consumption of whale oil has very materially increased. This fact is, of course, referable to the fashion now become very general, of burning table-lamps in the place of candles in our dwellings; but it must excite surprise in the mind of every one when first made acquainted with the fact, that during this time the use of candles in dwellings, and especially of wax candles, has also increased in a greater proportion than the population. It has been suggested, and with much apparent reason, that this increase may be consequent upon the greater brilliancy of the streets since they have been lighted with gas, and since we have thus been made dissatisfied with the quantum of light previously thought sufficient within our houses. Certain it is, that our apartments are much more brilliantly lighted now than they were before the introduction of coal-gas, whether that invention be chargeable with the increase or not.

During the first few years after its adoption, very large sums were spent in making experiments with the hope of bringing this mode of lighting to perfection, and to a certain extent those experiments were successful. It can hardly be said that much improvement has been made in the art during the last twenty years, although the spirit of invention is by no means quenched, and projectors are continually offering plans for economising the cost of the processes, but it may reasonably be expected that the invention has not so soon after its adoption reached the utmost limit of perfection.

It may be thought an easy thing to ascertain the consumption of food [illegible], and thence to determine the average quantities used by in-

dividuals, and the aggregate for the whole kingdom. Any one who may attempt to procure this information will, however, soon find greater difficulties in his way than he has anticipated. Very few persons keep any adequate records of their expenditure; and with those who do preserve them, such a variety of circumstances must be taken into consideration before the experience of individual families, placed in some circumstances or other of peculiarity, can be assumed as affording a test of the average expenditure, that a very rough approximation to the fact is all that we can reasonably expect to attain.

Not having been allowed in every case to mention the sources whence the following statements have been derived, the names of the parties and establishments are wholly suppressed, but every reliance may be placed in their entire accuracy.

No. 1. In a private family residing in a fashionable part of London, and consisting of a gentleman, his wife, six children, and ten servants; in all eighteen persons, two-thirds of whom were adults, the consumption in the year 1840 amounted to—

		Per Diem.	Per Annum.
6,668 lbs.	meat, or for each person	1·014916 lb.	370½ lbs.
5,100 „	bread „ „	0·776255 „	283½ „
541 „	butter „ „	1·317505 oz.	30⅛ „
1,887 qts.	milk „ „	0·287214 qt.	104⅞ qts.

In the following year the family was reduced to seventeen persons, by the discharge of one of the servants, and the consumption of the year was as follows:—

		Per Diem.	Per Annum.
5,820 lbs.	meat, or for each person	0·937953 lb.	342½ lbs.
3,668 „	bread „ „	0·591136 „	215¾ „
586 „	butter „ „	1·511039 oz.	34½ „
1,782 qts.	milk „ „	0·287187 qt.	104⅝ qts.

It would be difficult to account for the different rates of consumption observable in the statements of these two consecutive years. The only apparent differences in the conditions are, that there was one male servant discharged, and each of the six children was a year older, and therefore probably a larger consumer of solid food, and yet we see that the consumption of meat and of bread was less by 848 lbs. and 1,432 lbs. respectively; whence it would appear (making no account of the altered ages of the children) as if the discharged servant had consumed on an average more than six pounds of bread and meat daily, while the average consumption of the remaining seventeen persons did not much exceed one-fourth of that quantity. It is evident that there must be some disturbing cause that does not appear; and hence we may learn how little reliance is to be placed upon averages drawn, even with the greatest carefulness, from small numbers.

No. 2. In a large trading establishment in the city of London, con-

sisting of 114 persons, males and females, all adults, there was consumed in 1841—

		Daily.	In the Year.
34,914 lbs.	of meat, being per head	0·839077 lb.,	or 306½ lbs.
and 40,464 „	bread „	0·972461 „	„ 355 „

In this establishment, as well as in the family just described, the quantities consumed were at the discretion of the individual members. This may not have been the case with the following institutions, into the management of which a control of the expenditure would necessarily enter, so at least as to prevent waste, but without stinting.

No. 3. In an asylum consisting of nine superintendents and servants, and 158 female children, together 167 persons, the consumption of 1841 consisted of—

				Per Diem.	Per Annum.
16,625 lbs.	meat,	or for	each person	0·272742 lb.	99½ lbs.
41,690 „	bread	„	„	0·683947 „	249⅝ „
1,456 „	rice	„	„	0·023886 „	8¾ „
3,360 „	flour	„	„	0·055122 „	20⅛ „
1,780 „	butter	„	„	0·029201 „	10⅝ „
1,335 „	cheese	„	„	0·021901 „	8 „
21,848 „	potatoes	„	„	0·358428 „	130¾ „
13,201 qts.	milk	„	„	0·216569 qt.	79 qts.
16,272 „	beer	„	„	0·266951 „	97½ „

The average consumption of solid food in this asylum appears, therefore, to be 527½ lbs. in the year, or within a very small fraction indeed of 1½ lb. daily for each person.

No. 4. In another asylum, having an average number of 290 inmates, chiefly children of both sexes, the consumption during the year was —

				Per Diem.	Per Annum.
46,415 lbs.	meat,	or for	each person	0·438497 lb.	160 lbs.
80,780 „	bread	„	„	0·857628 „	313 „
62,720 „	potatoes	„	„	0·529536 „	216¼ „

The greater consumption in this case, 26 per cent. beyond that of No. 3, is probably occasioned by the circumstance of one-half of the institution being composed of males.

No. 5. Another asylum, on the establishment of which were 139 persons, chiefly young persons of both sexes, consumed in the year—

For each person	236 lbs.	of meat.	
„ „	473 „		bread and flour.
„ „	23 „		butter.
„ „	21½ „		cheese.
„ „	206 „		potatoes.
„ „	63 quarts	of milk.	
„ „	63 gallons	of beer.	
„ „	12 quarts	of oatmeal.	
„ „	9½ lbs.	of sugar.	
„ „	3 „		tea.

The expenditure in this case appears to be on a scale of great liberality, if, indeed, it do not go beyond that quality and exhibit profusion. The quantity of bread and meat consumed by each inmate is considerably greater than that of the family No. 1, in which there was neither the same motive, nor equal means for the exercise of carefulness. The quantity of solid food consumed is 80 per cent. beyond that of No. 3, and 40 per cent. beyond that of No. 4. The cost per head, for food alone, in this institution, is stated to have amounted in the year to 15*l.* 13*s.* 2*d.*, being 6*s.* 0¼*d.* per week.

No. 6. An asylum containing, on the average of the year 1841, 116 persons, 10 of whom were adults, and 106 male and female children, consumed—

		Per Diem.	Per Annum.
12,083 lbs.	meat, or for each person	0·285380 lb.	104⅛ lbs.
33,488 „	bread „ „	0·790030 „	288¾ „
3,360 „	flour „ „	0·079357 „	29 „
5,824 „	potatoes „ „	0·137553 „	50¼ „
1,402 „	cheese „ „	0·033113 „	12 „
520 „	butter „ „	0·012281 „	4½ „
2,207 gallons	milk „ „	0·208502 qt.	19 galls.

The consumption here detailed is nearly the same in average quantity as that of No. 3. The proportions of meat and bread are rather greater, and of potatoes less, and it is probable that the nutritive power of the food is in both cases nearly equal.

No. 7. This is a large public establishment, containing an average number throughout the year of 646 male persons, chiefly boys. The consumption during 1841 was—

Cwts. qr. lbs.		Per Diem.	Per Annum.
779 1 8	meat, or for each person	0·365104 lb.	133¼ lbs.
2,118 0 6	bread „ „	1·053700 „	384½ „
69 2 18	flour and oatmeal	0·032245 „	11¾ „
153 3 8	cheese „ „	0·073034 „	26⅝ „
765 0 0	potatoes „ „	0·358716 „	131 „
62 2 6	butter „ „	0·029718 „	10⅞ „
59 1 24	green vegetables „	0·028249 „	10¼ „
16 1 0	raisins „ „	0·007720 „	2¾ „
9,540 gallons	milk „ „	0·160338 qt.	58½ qts.
12,888 „	beer „ „	0·218670 „	80 „

The consumption, in this case, of solid food amounts to 711 lbs. per annum, or within a small fraction of 2 lbs. daily (13 lbs. 11 ozs. per week). Judging from the other cases brought forward, this must be considered a very liberal dietary.

No. 8. Another large establishment, in which the children are younger than those in No. 7, and where a small proportion are females. It consisted of 365 males and 67 females. In the course of the year 1841 they consumed—

Cwts.	qrs.	lbs.		Per Diem.	Per Annum.
483	3	1	meat, or for each person	0·343048 lb.	125¼ lbs.
1,193	1	1	bread „ „	0·846175 „	309 „
49	2	4	flour and oatmeal	0·035127 „	12¾ „
54	1	16	cheese „ „	0·038571 „	14 „
354	0	0	potatoes „ „	0·251032 „	91½ „
31	2	23	green vegetables	0·022483 „	8¼ „
25	3	21	butter „ „	0·018393 „	6¾ „
11	3	8	raisins „ „	0·008383 „	3 „
10,665	gallons		milk „ „	0·270102 qt.	98½ qts.
6,631	„		beer „ „	0·167973 „	61½ „

Considering the different circumstances already noticed, this consumption may be considered equal to that of No. 7. Both institutions are under the same management.

CHAPTER VI.

PRICES.

Effect of Prices upon Consumption—Cost of Ship-building in 1805 compared with the Cost in 1836—Prices of Beef and Mutton—Of various Articles of Clothing—Prices of Dress at Chelsea Hospital.

THE effect of variations in price, as occasioned by additions to or reductions of duties upon the consumption of particular articles, has been sufficiently shown in the preceding Chapter. The ultimate limit of consumption, as already stated, is the power of production; since it must be quite evident, on the one hand, that no more can be consumed than is produced; and equally evident, on the other hand, that men will not continue to produce an article in quantities beyond what will be demanded at a price sufficient to replace the cost of production, together with the ordinary rate of profit.

The power to use and to consume has always been practically limited only by inability to command the means of purchasing—a cause which, in some degree or other, has been always in operation as regards the most numerous portion of every community. The proportionate consumption in a country at various periods forms, therefore, a very good help by which to estimate its comparative prosperity.

Some accidental causes, such as a change of fashion, may occasion more or less of certain commodities to be used; but this will not affect the general consumption of all commodities. If from some such cause more of one kind are purchased, there will be less of others; and the variation of demand thus induced will, if continued for a sufficiently long time, determine the employment of a greater or less amount of industry for the production of the articles affected. It is not by such means, however, that permanent variations of price are brought about. Except in a modified degree, and occasioned by other causes, into which it is not now necessary to inquire, such variations can only occur through variations in the cost of production or the charges of distribution. If (other things remaining equal) the cost of producing a yard of cloth be reduced one-half by improvements in the processes of manufacture, there will thenceforward be at least an equivalent increase in the quan-

tity used, not so much because every wearer of cloth will be less careful of his garments, as because a larger class of consumers will be enabled to purchase.

Estimate of the Expense of Materials and Labour for Building a 74-Gun Ship, of 1706 Tons, given to the Navy Board, 5th January, 1805, by Messrs. Wells, Brent, Barnard, and Roberts, Dudman, and Pitcher, compared with the cost in 1836.

	Cost in 1805			Cost in 1836		
	£. s. d.	£. s. d.		£. s. d.	£. s. d.	
Timber—Oak . 2,400 loads . .	7 10 0	18,000 0 0		5 10 0	13,200 0 0	
Elm . 80 „ . .	6 0 0	480 0 0		4 10 0	360 0 0	
Fir . . 45 „ . .	5 10 0	247 10 0		5 10 0	247 10 0	
Knees . . . 230 „ . .	10 10 0	2,415 0 0		7 10 0	1,725 0 0	
Thick stuff, 5-in. and upwards . 364 „ . .	14 0 0	5,096 0 0		13 0 0	4,732 0 0	
4-inch plank . . 120 „ . .	13 0 0	1,560 0 0		12 0 0	1,440 0 0	
3-inch ditto & under 150 „ . .	11 0 0	1,650 0 0		10 0 0	1,500 0 0	
East Country plank 150 „ . .	13 0 0	1,950 0 0		12 0 0	1,800 0 0	
Deals—3-inch . 360 „ . .	1 16 0	648 0 0		1 10 0	540 0 0	
2½-inch . 180 „ . .	1 10 0	270 0 0		1 5 0	225 0 0	
2-inch . 180 „ . .	0 18 0	162 0 0		0 18 0	162 0 0	
1½-inch, 20 ft. 500 „ . .	0 7 0	175 0 0		0 5 0	125 0 0	
1-inch „ 300 „ . .	0 5 6	82 10 0		0 4 0	60 0 0	
¾-inch „ 300 „ . .	0 3 6	52 10 0		0 3 0	45 0 0	
Elm board, 1,000 feet	0 1 10	15 0 0		4*d.* foot.	16 13 4	
Sawyers' labour, per hundred . .	0 1 10	2,559 0 0		16*s.* per ton	1,364 16 0	
Shipwrights' ditto . per ton . .	4 12 0	6,824 0 0		3 3 0	5,373 18 0	
Labourers' ditto . . „ . .	0 12 0	1,023 12 0		0 7 0	597 2 0	
Caulkers' ditto, and materials . . „ . .	0 12 0	1,023 12 0		0 10 0	853 0 0	
Joiners' ditto, ditto . „ . .	0 15 0	1,279 10 0		..	1,279 10 0	
Smiths' work . . . . „ . .	2 5 0	3,838 10 0		2 0 0	3,412 0 0	
Carvers 2*s.*, plumbers 4*s.*, painters and glaziers 4*s.*	0 10 0	853 0 0		..	853 0 0	
Tinman 9*d.*, blockmaker 1*s.* 3*d.* plaistering 10*d.*	0 2 10	241 13 8		..	241 13 8	
Scraper	0 0 2	14 4 0		..	14 4 0	
Landing timber and plank, and landing and housing deals . .	..	356 18 0		..	200 0 0	
Cross spalls, harpins, and ribands .	..	200 0 0		..	150 0 0	
Kiln fire and attendance, per ton .	0 2 0	170 12 0		..	150 0 0	
Standards, staging, and shores, 480*l.*; cordage and blocks, six tons, 420*l.*	..	900 0 0		..	500 0 0	
Ringbolts, clamps, screws, bolts, and utensils	..	300 0 0		..	250 0 0	
Mould-loft expenses, 100*l.*; purveying expenses, 200*l.*; officers' salaries, 800*l.*	..	1,100 0 0		..	700 0 0	
Rent and taxes, 500*l.*; launching-gear, 150*l.*; insurance, 150*l.* .	..	800 0 0		..	500 0 0	
		54,288 1 8			42,617 7 0	
15 per cent.	..	8,142 0 0		5 per cent.	2,130 17 4	
36*l.* 11*s.* 3*d.* per ton .	..	62,430 0 0		26 4 7 per ton.	44,748 4 4	

Permanent alterations of price are always indicative of variations equally permanent in the cost of production or transmission, and as, in the progress of manufacturing industry, it most commonly, nay, universally happens that processes are simplified and labour economised, the uniform tendency has thence been to a progressive increase of consumption. It may be sufficient on this head to refer the reader to the

second Section of this work, in which the progress of improvements and consumption have been traced with respect to several principal branches of our manufacture. The object now in view is not to write a scientific treatise, but to bring forward some facts that may be useful for confirming or correcting the theories of others, and for showing in a practical manner the different results that have followed in various cases from legislative interference.*

The preceding statement of the cost of materials and labour employed in the construction of a ship of 74 guns, in each of the years 1805 and 1836, will be found interesting. The prices in 1805 are taken from a parliamentary paper, and are those which were paid to five of the most considerable ship-builders on the Thames; those in 1836 were kindly supplied by Mr. G. F. Young, of the firm of Curlings and Young.

The following statement of the prices of beef and mutton at Lady-day and Michaelmas, in each year from 1801 to 1849, is taken from the weekly book of St. Thomas's Hospital, in Southwark; and as the pieces and parts of the oxen and sheep purchased have been the same throughout the time, the table is strictly comparative:—

Years.	Beef per Stone.		Mutton per Stone.		Years.	Beef per Stone.		Mutton per Stone.	
	Lady-day.	Michaelmas.	Lady-day.	Michaelmas.		Lady-day.	Michaelmas.	Lady-day.	Michaelmas.
	s. d.	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.	s. d.
1801	5 8	5 8	6 0	5 4	1826	4 0	4 0	4 8	4 4
1802	5 0	5 0	5 4	5 4	1827	4 0	4 0	4 4	4 4
1803	4 8	4 8	5 0	5 0	1828	3 8	3 8	4 0	4 0
1804	4 6	4 10	4 8	5 0	1829	3 6	3 4	3 10	4 0
1805	4 4	4 6	4 6	4 4	1830	2 8	3 0	3 2	3 6
1806	4 8	4 10	4 10	4 10	1831	3 4	3 4	4 2	4 2
1807	4 8	4 8	5 0	5 0	1832	3 4	3 0	4 2	3 10
1808	4 6	5 0	4 8	5 0	1833	3 4	3 4	3 10	4 2
1809	5 0	5 8	5 0	5 4	1834	3 0	3 0	3 10	3 6
1810	5 8	5 8	5 4	5 8	1835	2 10	3 2	3 0	3 4
1811	5 8	5 8	5 8	5 8	1836	3 6	3 4	3 8	3 10
1812	6 0	6 0	6 0	6 0	1837	3 4	3 4	3 10	4 2
1813	6 4	6 4	6 4	6 4	1838	3 0	3 4	3 6	3 10
1814	6 4	5 8	7 0	6 0	1839	3 4	3 8	3 10	3 10
1815	5 4	4 6	5 4	4 8	1840	3 4	3 8	3 8	4 0
1816	4 0	4 0	4 8	4 8	1841	4 0	3 8	4 4	4 0
1817	3 8	3 8	4 8	4 0	1842	3 4	3 0	3 8	3 4
1818	4 4	4 4	4 8	5 0	1843	2 8	3 0	3 0	3 4
1819	4 10	4 10	5 8	5 8	1844	2 8	2 8	3 0	3 4
1820	4 10	4 6	5 4	5 4	1845	2 8	3 4	3 4	4 0
1821	4 0	3 8	4 8	4 0	1846	3 8	3 4	4 4	4 0
1822	2 10	2 6	3 4	3 6	1847	3 8	3 10	4 4	4 6
1823	2 6	3 4	3 6	3 8	1848	4 0	3 4	4 8	4 0
1824	3 4	3 4	3 8	3 8	1849	3 0	3 0	3 8	3 8
1825	4 0	4 4	4 8	4 8					

The average quantity of meat used daily in the hospital is 32 stones 4 pounds.

* If it be required to know the fluctuations that have occurred in the prices of various descriptions of merchandise, recourse may be had to the Appendix to Mr. Tooke's 'History of Prices,' in which the most complete and accurate tables of that nature are given, embracing the period of 56 years, from 1782 to 1838.

The average prices, per stone of 8 lbs., of butcher's meat, sold in the London markets, in each year from 1841 to 1849, have been as follows:—

	1841	1842	1843	1844	1845	1846	1847	1848	1849
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Inferior Beasts	3 4½	3 4½	2 8½	2 7½	2 9½	2 8	3 5½	3 2	2 7
Second Class	3 9	3 7	3 2½	3 1	3 5½	3 1½	3 10½	3 7	3 1½
Third Class (large prime)	4 2½	3 11½	3 7	3 5½	3 9	3 7½	4 3½	3 11	3 6½
Fourth Class (Scots)	4 7½	4 5½	3 10½	3 10½	4 1½	4 0	4 8	4 3	3 10
Inferior Sheep	3 6½	3 5½	3 0½	2 11	3 4½	3 7½	4 0	3 9½	3 0½
Second Class	3 10½	3 10	3 5	3 5½	3 10½	4 1	4 4½	4 2½	3 4½
Third Class (long coarse woolled)	4 4½	4 1½	3 10	3 8½	4 3½	4 5½	4 8½	4 8½	3 10½
Fourth Class (South Downs)	4 11	4 5½	4 1	4 0½	4 9	4 10	5 3	5 1½	4 2½
Lambs	5 5½	5 5	4 9½	5 0½	5 3	5 11	5 9½	5 5½	4 10½
Coarse Calves	4 11	4 2	3 9½	3 8½	4 1½	4 0½	4 5½	4 0½	3 4½
Small Prime Calves	5 5½	4 9½	4 4½	4 3½	4 9½	4 8	5 0½	4 7	4 2½
Large Hogs	4 5½	4 4½	3 5	3 3½	3 7½	4 0½	4 2½	4 2½	3 4½
Small Neat Porkers	4 10½	4 10½	3 11½	3 10½	4 5	4 9½	4 10½	4 9½	4 2½

Enough has already been said, in the course of this work, concerning variations in the prices of various descriptions of agricultural produce. It will suffice therefore if, in concluding this chapter, some particulars are given of the cost of certain articles of clothing purchased for the inmates of Bethlehem, Greenwich, and Chelsea Hospitals. The descriptions and qualities purchased by the same establishment do not vary from year to year, so that the variations in prices may be taken as strictly comparative throughout.

BETHLEHEM HOSPITAL.

Years.	Sixth-fourth Witney Blankets, per Pair.	Men's Stockings, per Dozen Pair.	Women's Stockings, per Dozen Pair.	Sheets per Pair.	Seven-eighth Dowlas, per Yard.	Eleven-eighth Check, per Yard.	Cotton Prints, per Yard.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1814	16 6	26 0	25 0	18 6	1 8	2 2	..
1815	16 6	26 0	25 0	18 6	1 8	2 2	..
1816	15 0	26 0	25 0	18 0	1 7	2 0	..
1817	11 0	24 0	23 0	13 6 per yard.	1 6	1 6	..
1818	13 6	24 0	21 0	2 7	1 5	1 4½	1 1½
1819	12 9	26 0	23 0	2 3	1 4	1 4½	1 2
1820	12 3	24 0	20 0	2 2	1 3	1 3½	1 1
1821	12 0	26 0	21 0	2 3	1 3	1 2	1 0
1822	11 0	25 6	20 0	2 3	1 3	1 2	1 0
1823	10 6	24 6	19 6	2 3	1 2	1 2	1 0
1824	10 0	19 0	12 3	1 8	1 0	0 10	0 10
1825	11 0	25 0	20 0	1 9	1 2½	0 10½	0 11
1826	9 0	21 0	17 0	1 5½	1 0	0 11	0 10
1827	9 0	21 0	17 0	1 5½	1 0½	0 10½	0 9
1828	9 0	21 0	17 0	1 5½	1 0½	0 10½	0 9
1829	9 0	21 0	17 0	1 5	1 0½	0 10½	0 8½
1830	9 0	21 0	17 0	1 5	1 0½	0 10½	0 8½
1831	8 9	13 0	12 0	1 3	0 10½	0 7	0 5½
1832	8 8	21 0	16 6	1 2½	0 11¾	0 8	0 5
1833	9 6	21 6	18 0	1 2½	1 0	0 8	0 5½
1834	11 10	22 0	20 0	1 3	1 0½	0 8	0 5½
1835	11 4	23 0	20 0	1 4	1 1½	0 10¾	0 6½

GREENWICH HOSPITAL.

Years.	Shoes per pair.	Stockings per pair.	Blankets.	Bedding, Suits.	Clothes, Suits.	Coats, each.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1800	5 8	1 6	6 6	..	..	20 0
1805	5 9	2 2	8 9	..	..	21 10
1806	5 9	2 2	8 9	..	..	21 10
1807	5 0	2 2	8 9	..	..	21 6
1808	5 0	2 2	8 9	..	..	21 4
1809	5 6	2 2	8 9	..	..	21 4
1810	5 6	2 2	8 9	..	..	21 4
1811	4 11	2 2	8 9	..	..	22 2
1812	4 11	2 6	8 9	..	..	22 2
1813	4 8	2 6	8 9	..	..	22 2
1814	4 8	2 3	11 6	..	..	24 6
1815	4 7	2 3	11 3	..	..	24 9
1816	4 7	2 9	9 4½	..	..	24 9
1817	3 10	2 9	9 4½	..	..	20 7
1818	3 10	2 11	9 4½	..	41 0½	20 7
1819	4 2½	2 11	..	59 10½	41 7½	21 10½
1820	4 4½	2 9½	..	59 10½	43 3½	22 7
1821	4 3	2 8	..	59 10½	41 9	21 11
1822	4 2½	2 5	..	59 10½	40 2½	21 3
1823	4 7½	2 2	..	59 10½	39 11½	21 1½
1824	4 9½	2 1½	..	59 10½	39 11½	21 2
1825	4 6	2 1½	..	59 10½	40 8½	21 8
1826	4 5	2 0½	..	59 10½	41 6½	22 2
1827	4 3½	1 10½	..	48 3	33 10½	21 4
1828	4 3	1 9½	..	45 9	38 1	20 7
1829	3 9½	1 9½	..	45 9	38 6½	..
1830	3 6	1 6½	..	37 10½	38 6½	..
1831	3 6	1 6½	..	37 10½	40 11½	..
1832	3 4½	1 7½	..	39 3½	43 4	..
1833	3 4½	1 7½	..	39 3½	43 8½	..
1834	3 3½	1 8½	..	44 11½	47 2½	..
1835	3 3½	1 9½	..	44 1½	46 1	..
1836	3 3½	1 10	..	45 7	47 2½	..
1837	3 3½	1 10	..	45 7	46 5½	..

CHELSEA HOSPITAL.

Years.	Officers' Coats.	Privates' Coats.	Officers' Waistcoats.	Privates' Waistcoats	Officers' Hats.	Privates' Hats.	Officers' Shoes.	Privates' Shoes.
	£. s. d.	*£. s. d.*	*£. s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
1815	3 8 7	1 7 1	1 11 6	11 7	17 11	4 2	7 0	7 0
1816	3 8 7	1 7 1	1 11 6	11 7	17 11	4 2	7 0	7 0
1817	3 4 2	1 3 7	1 7 6	11 0	19 0	4 4	5 6	5 6
1818	3 4 2	1 3 7	1 7 6	11 0	19 0	4 4	5 6	5 6
1819	3 5 6	1 7 2	1 17 11	12 0	19 3	4 5	6 0½	6 0½
1820	3 5 6	1 7 2	1 17 11	12 0	19 3	4 5	6 0½	6 0½
1821	2 12 5	1 0 10	1 5 8½	9 4	18 6½	4 0	5 3	5 3
1822	2 12 5	1 0 10	1 5 8½	9 4	18 6½	4 0	5 3	5 3
1823	2 4 6	0 17 8	1 0 3	8 8	17 6	4 0	6 0	6 0
1824	2 4 6	0 17 8	1 0 3	8 8	17 6	4 0	6 0	6 0
1825	2 2 11½	0 18 0½	1 2 9	7 10	18 3	4 2	4 10	4 10
1826	2 2 11½	0 18 0½	1 2 9	7 10	18 3	4 2	4 10	4 10
1827	2 4 7½	0 16 9½	1 0 4½	6 3½	18 2½	4 2	5 1	5 1
1828	2 4 7	0 16 9½	1 0 4½	6 3½	18 2½	4 2	5 1	5 1
1829	2 2 5	0 16 3	1 0 2	6 8	18 0	4 2	5 0	5 0
1830	2 2 5	0 16 3	1 0 2	6 8	18 0	4 2	5 0	5 0
1831	2 6 2	0 17 5	1 3 0	7 4	18 3	4 2	4 9	4 9
1832	2 6 2	0 17 5	1 3 0	7 4	18 3	4 2	4 9	4 9
1833	2 2 7	0 17 11	1 1 9	6 10	18 0	4 2	4 6½	4 6½
1834	2 2 7	0 17 11	1 1 9	6 10	18 0	4 2	4 6½	4 6½
1835	2 7 4	1 0 9	0 11 7	7 11	17 5	4 1	4 7	4 6½

SECTION VI.—ACCUMULATION.

CHAPTER I.

Conditions under which Accumulations occur — Proofs of increasing Wealth — Greater Power of Accumulation in Peace than in War, because of the Difference of the Public Expenditure under the two Conditions — Probable present State of England in this respect if we had avoided the Wars with our North American Provinces, and with the French Republic and Empire.

As there can be no consumption without previous production, so there can be no accumulation unless the productive industry of a nation is employed to such a degree as will make provision beyond the immediate wants of the people.

If the producing power of the people in this country had always been strictly limited to the point that would satisfy their pressing and temporary necessities, it would have been quite impossible that any increase in the number of its inhabitants could have occurred without proportionally and progressively taking away from the comfort of the existing population. That our numbers have experienced a great increase, while our power of commanding the necessaries and conveniences of life has also gone on increasing, affords abundant proof therefore that in the meanwhile accumulation has proceeded in at least an equal ratio, and that the substantial wealth, the capital of the country, has kept pace with our modern progress in other respects.

This fact appears so amply confirmed by proofs that meet us on every side—proofs admitting of no doubts, and incapable of receiving any different interpretation—that it is marvellous how they can escape the notice of any one, or fail to produce the universal conviction that, if we have not made as much progress as our means should have enabled us towards the well being of all classes of the community, we have yet during the present century, and especially within the last twenty-five years, made great advances in that direction, greater perhaps than were

ever before realized by peaceable means, and by any community in any equal period of time. It is, notwithstanding, by no means uncommon still to hear complaints of increasing distress and anticipations of approaching national ruin; although it must be confessed that such gloomy views and forebodings are less frequently brought forward now than they were only a very few years back—an effect which may be in some measure attributable to the signs of wealth and prosperity among us having become more obvious through the particular direction that has been given to the employment of a portion of the general savings of the community. The present has been called the age of locomotion—not of locomotion such as was employed by our forefathers, who were in a far greater degree than we are confined to the use of their own bodily energies for the means of conveying themselves from place to place, but of locomotion accelerated and stimulated by numerous combinations of men who work through the employment of vast masses of capital. The arrangements which have rendered possible this change are known to have caused an enormous outlay; and as no evidence can be found of any stinting of capital for other and previously-pursued objects, the inference is unavoidable that the new call must have been answered from increased accumulations.

If a comparison be made between the public expenditure of the United Kingdom in the 23 years from 1793 to 1815, and that of the like period of 23 years from 1816 to 1838, it will be found that it was less in the latter than in the former period by 332,090,640*l.*, showing an average annual difference of 14,438,722*l.* It matters not, for the purpose now under consideration, what part of the sums here mentioned was raised from taxation, and what part was borrowed; under whatever guise it was derived, the whole was provided by the nation at large; and if the greater expenditure of the war period was so provided without diminishing or even without materially impairing the capital of the nation, it must needs be that the smaller expenditure of the second or peace period has left an enormous increase of wealth in the nation. It will place this matter in even a stronger light if the comparison is made between the last 10 years of the war, from 1806 to 1815, and the 10 years ending with 1838. The expenditure in the first of these periods was 860,677,615*l.*, and in the last 478,122,345*l.*; exhibiting a difference of 382,555,270*l.*, or an average of 38½ millions more expended during each of the last 10 years of war than during each of the 10 years of perfect peace. It further appears, from this comparison, that the aggregate difference has been greater between the two decennary periods than it was between the two longer periods of 23 years—a fact that has resulted from the progressively-increasing charge of the national debt, which was far greater in the latter years of the war than it had previously been, and from the consequent increased charge

upon the income of the country, which has been in great part continued to the present time. This portion of the national expenditure was—

Years.	£.	Years.	£.
In 1793	9,437,862	In 1841	29,450,144
1815	31,576,074	1849	28,323,961
1838	29,260,238		

It is probable that, owing to the greater development of the resources of the country, arising from the extension of its manufactures, a considerable addition was made to the national wealth during the early part of the war begun in 1793, notwithstanding the large expenditure that it occasioned; but this could no longer be the case when that expenditure was so lavishly increased that, as already shown,* the war charges, added to the interest on the national debt, in one year, (1814) exceeded 100 millions, a great part of which sum being expended in foreign countries was wholly abstracted from the national capital. Such a rate of exhaustion could not possibly have been continued; its disastrous effects were made sufficiently apparent during the earlier years of peace, but must have been long since repaired.

While dwelling on these circumstances, it seems hardly possible to prevent the inquiry arising in the mind, what must have been the condition of England at this time if the wars which caused this lavish, this unexampled, expenditure could have been avoided. A small part only of that expenditure would have sufficed to pay off the whole of the national burthens as they stood in 1793; we should then assuredly have heard nothing of the restrictions upon various branches of trade for which those burthens were so long made the groundless pretext, and an amount of prosperity would have been experienced that must have had the happiest effect upon the physical and moral condition of England first, and through England upon that of the whole European family.

If we may carry back our inquiry to a still earlier period—to the years that followed the peace of Paris in 1763, and before the breaking out of the unfortunate troubles that ended in the loss to us of our North American plantations, we shall find cause for still deeper regret. At the commencement of the insurrectionary war in America, our debt amounted to less than 130 millions, the annual charge in respect of the same being 4½ millions, or less than one-sixth of its present amount. The sources of our national wealth which have since been discovered and made available, were none of them brought to light or fostered through the partial dismemberment of the British Empire. On the contrary, it may be said that the extent to which they have been carried was importantly limited by that misfortune. Had the case been otherwise—had the field for our manufacturing inventions equally embraced a peaceful and flourishing British Empire in the West, how much more

* Page 505.

rapid and gigantic must have been its growth! how much more rapid and gigantic, too, might have been the growth of the North American States themselves, if, instead of being drained of men and treasure in supporting the revolt into which they were driven in resistance of what has since been acknowledged to have been a course of legislative tyranny, they had continued to be recipients of the surplus population, and sharers in the accumulating capital of the mother-country! Is it likely, it may even be asked, could it possibly have happened, in such circumstances, that the British Empire could have been involved in such a war as that which followed the breaking out of the French revolution? Nay, is it probable that, without the participation of France in that struggle as the abettor of rebellion and the ally of republicanism, the French revolution would have occurred when and as it did occur? These, it is true, are questions of speculation rather than of fact, and it would be of little advantage to pursue them further on this occasion.

CHAPTER II.

INCREASE OF PERSONAL AND REAL PROPERTY.

Forms in which the National Accumulations appear—Amount of Property Insured at different Periods—Moral and Economical Effects of Insurances—Accumulations in Life Assurance Offices—Property devised in respect of which Legacy Duty has been paid affords an insufficient Test of the Amount of Accumulations—Estimate of Personal Property in the Kingdom at different Periods—Capital on which Legacy Duty was paid in Fifty-two Years to 1849—Yearly Average Amount, compared with the Year 1848, in England, Scotland, and Ireland—Savings invested in the Security of Real Estates, and in their Improvement. Assessments on Real Property, showing its Value at various Periods—Savings' Banks.

IT must be sufficiently evident, from the circumstances stated in the last Chapter, that the accumulation of capital in this country since the peace has been exceedingly great; but it will place the fact in a much stronger light to bring forward in evidence some of the forms in which that accumulation has been made most apparent.

During the war, the surplus profits and the savings of individuals were, to a great degree, swallowed up by the public expenditure, and went to supply the constant drain which, without those savings, would very speedily have exhausted the whole resources of the nation. The return of peace soon brought the expenditure of Government nearer to the amount of revenue realized from taxation, and in time left a yearly surplus of income to be applied in diminution of the public debt. The loan of 1836, raised for the payment of the compensation for slaves, can be considered as only in a slight degree affording an opportunity for the absorption of savings. Unlike the produce of other loans, the amount was not consumed and destroyed, but by far the greatest part of it went to the payment of debts due to merchants in England, by whom it was employed as capital, and thus, as far as the nation generally was concerned, effected only a change from one hand to another, without causing any material alteration in the aggregate amount of capital in the country.

The amount of property insured does not, of itself, afford a correct view of the progressive value of the description of property liable to destruction by fire. It is most probable that a large but a continually lessening proportion of such property is always left uninsured; and it is manifestly impossible to calculate the proportionate degree of prudence among its owners, so as to arrive at any probable estimate of the

aggregate value of insurable property in the country. The following statement of the sums insured in the fire-offices of England, Scotland, and Ireland, at different periods within this century, has been calculated from the amount of duty received in respect of the same at the Stamp Office. If it be desirable—and who can doubt that it is so?—that all persons should secure themselves from losses arising through accidents beyond their own control, it must then be held unwise to subject insurances to taxation; and when, as in this country, the tax thus levied amounts to 200 per cent. upon the sum required by the insurance offices to cover the ordinary risk from accidents by fire, the degree of discouragement occasioned by the duty must needs be very great. It is not only by reason of the security arising to individuals, amounting often to the prevention of beggary, that insurances against fire and upon lives are beneficial: they exercise a good effect upon the country generally through the accumulation of savings which they cause. The sums paid for premium on life-policies especially, are, in every case, put by and added to the accumulating capital of the community. The money, as it is paid to the insurance offices, is beneficially employed, and made to stimulate, in one way or another, the industry of the nation; and when called for by the arrival of the contingency against which the payments were meant to provide, it is pretty certain that in a large proportion of cases the money is so much clear gain, because without such a resource the premiums out of which it is provided would have been unprofitably consumed.

The sums insured against fire in England, Scotland, and Ireland, respectively, in each of the years 1801, 1811, 1821, 1831, and 1841 to 1849, were as follows:—

Years.	England.	Scotland.	Ireland.	United Kingdom.
	£.	£.	£.	£.
1801	219,623,954	3,786,146	8,832,125	232,242,225
1811	340,296,000	13,106,400	13,302,400	366,704,800
1821	381,406,000	13,824,666	12,806,666	408,037,332
1831	473,073,333	34,109,333	19,472,666	526,655,332
1841	605,878,933	44,655,300	31,005,606	681,539,839
1842	613,684,300	43,929,200	31,179,100	688,792,600
1843	614,533,500	43,665,900	32,480,100	690,685,500
1844	623,628,400	45,484,700	33,082,500	702,195,600
1845	640,680,500	47,122,900	34,277,900	722,081,300
1846	653,887,000	49,760,000	35,392,300	739,039,300
1847	668,759,100	48,720,100	36,028,700	753,507,900
1848	667,646,400	42,928,900	33,964,800	744,540,100
1849	679,814,100	42,780,700	33,686,100	756,280,900

The increase of the amount insured in the United Kingdom has been,—

Comparing	1801 with	1811	£ 134,462,575, or	57·89 per cent.
„	1801 „	1821	175,795,107 „	75·69 „
„	1801 „	1831	294,413,107 „	126·77 „
„	1801 „	1841	449,297,614 „	193·45 „
„	1801 „	1845	489,837,075 „	210·91 „
„	1801 „	1849	524,038,675 „	225·64 „

The policy-duty on life insurances is but trifling in amount, and being charged only when the insurance is first effected, and not annually, as in the case of fire insurances, it would afford no test of the amount of policies outstanding at various periods. The records of the Stamp Office do not even offer the means of ascertaining the amount of new insurances effected from year to year, because the stamps employed are not distinguished from those used for giving validity to many other descriptions of instruments. The great increase, of late years, in the number of Life Assurance Offices, and the flourishing condition in which they appear to be, leads us to conclude that the number of insurances must have been very greatly augmented, although it seems probable that the system has not yet been carried to anything like the extent that is desirable.

It is believed that the sums accumulated in the hands of the various Life Insurance Offices in the kingdom, and which form a part of the savings of the assured, amount to at least forty millions of money, an estimate which will not be thought extravagant when it is known that the assets of one office, the Equitable Assurance Company, form one-fourth of that sum. It is to be wished that our various Life Assurance Societies were obliged by the legislature to register the amount of their engagements, and of the funds which they respectively hold to provide for the same. Such a regulation could not prove injurious to any assurance office conducted upon safe principles, while it would serve to put the public upon their guard against such—if any there be—as should be otherwise conducted, if it did not prevent their establishment. It must surely be useful to protect the public against the risk of intrusting to unsafe hands savings which are made oftentimes with much privation and at great sacrifice for the benefit of the widow and the orphan. At present there is no information upon this subject whereby a man may be guided in the selection of an office; and, should he make a bad choice, his error may not discover itself until to remedy it will have become impossible. There are, it is true, Assurance Offices which are of known stability, and by the choice of which a man may avoid the risk here mentioned; but to do this, it will mostly be the case that he will be forced to pay a rate of premium higher than sufficient, so that either his privation will be greater than it need be, or the sum insured to his family smaller than might have been provided.

Occasion has already been taken, in describing the produce of taxes (Section iv. Chapter iii. pp. 492 and 493), to show the capitals upon which legacy duty was paid in great Britain in each year, from 1797 to 1848.

The sums thus registered do not comprise the whole of the personal property held in this country which changes hands on the death of its

possessors. A further amount passes away from persons who die intestate, and whose property is distributed under letters of administration. The amount thus dealt with yearly is computed at nearly five millions. Beyond this a very large sum is bequeathed to widows, and is not chargeable with legacy duty. But even if this amount could be ascertained, we should still be without some part of the information necessary for making an accurate estimate of the personal property accumulated and held within the kingdom. The probate and administration duties certainly include all cases where the property of deceased persons is of considerable value, and many cases also where the sums are small. The number of wills proved in England and Scotland, and upon which probate duty was paid in 1841, appears to have been 16,684, and letters of administration were taken out in the same year for the distribution of the property of 6301 intestate persons, together 22,985; out of which number there were 8276 cases in which the property did not exceed 200*l.* in value. It is well known that in many cases where no will is left, and the property is of that nature which admits of easy distribution among the natural heirs of the deceased, a division takes place without any payment of duty; besides which, the property of deceased persons, when not exceeding 20*l.* in value, is exempted by law from taxation. If, for the sake of illustration, we may suppose that every head of a family, when he dies, leaves some property behind him, it appears that from some cause or another only three-tenths of the number are thus made to contribute directly to the revenue. The number of male persons living in England and Wales at the time of the census of 1831, was 6,771,190, comprising 2,911,874 families. At the last census, in 1841, the male population of England and Wales was 7,770,941; and if the proportion then remained the same as was found to exist in 1831, the number of families must have been 3,341,805, corresponding very nearly to the number of male persons living 25 years old and upwards (3,371,144). The deaths, male and female, registered in England and Wales during the year from the 1st July, 1839, to 30th June, 1840, were 350,101, or 1 in 45·44 of the population. Of males alone the deaths registered were 177,926, or 1 in 43·67 of the male population living in 1841. According to this proportion the heads of families included among those male deaths must have been 76,524. It is evident that this number will not be correct, because of the want of uniformity in the rates of mortality at different ages; but it is very near to the truth, according to the fact above assumed, that twenty-five years is the average period at which persons become heads of families,—the deaths occurring at and above that age in the year mentioned having been 75,205, a difference of less than 2 per cent. We have seen that the number of persons who died in 1841, and whose property was subjected to the legacy and probate duties, was only 22,985, being

only three in ten of the deaths probably occurring among heads of families.

For a reason already given (page 494), it is not possible to ground any accurate calculation upon the produce of the legacy duty during the earlier years of its operation; but that branch of revenue must now for many years have afforded comparative data for such a calculation, and has given evidence of the rapid accumulation of wealth in the kingdom. If we are justified in the data here assumed, and estimate the amount upon the scale assumed in the foregoing calculation, the value of personal property at different periods since the closing year of the war, stated in round numbers, would have been as follows:—

Years.	£.	Years.	£.
1814	1,200,000,000	1834	1,800,000,000
1819	1,300,000,000	1841	2,000,000,000
1824	1,500,000,000	1845	*2,200,000,000
1829	1,700,000,000		

The addition of 1000 millions to the value of property during thirty-one years of peace will not appear improbable if we recall to mind the facts that during the last ten years of the war the public expenditure exceeded, on the average, 83 millions, while the average has, in the following twenty-four years, not exceeded 50 millions. The difference between these two sums would alone suffice in that period to make up the sum of 1000 millions.

It should be borne in mind that the apparent amount of personal property within the kingdom is factitiously raised by considering as a part of it the sum due to the national creditors, amounting to 790,000,000*l.* Another very large abatement should likewise be made for the amount of money due on mortgages of real property, and which, although it is considered as personal property, and thus is subjected to the probate and legacy duties, has, in fact, become a part of the real property of the kingdom, supplying means for its improvement, or repairing the waste of its possessors.

The following analysis of the sums paid for probate duty, and on taking out letters of administration in England and Scotland respectively, in 1838, shows the number of wills and of intestate estates subjected to the various rates of duty, and the capitals in respect of which the duty was paid; but the statement must not be relied on as giving an accurate view of the property that passes, because the amounts are in many cases reduced by the payment of debts due from the deceased, and by other charges upon their estates. It has been further necessary, in consequence of the mode employed for levying the duty, to assume in each case the amount of capital. Each rate of duty is made to apply to a certain

* The tendency has been great, since 1845, to convert floating into fixed capital, by constructing railways and other works of a permanent character, on which account no addition is made to the estimate adopted in that year.

range of value. For example, the lowest rate, where there is a will, which is ten shillings, covers all sums above the value of 20*l.* and under the value of 100*l.*; in all cases where this rate of duty has been paid, the capital is assumed in the following table as being the mean between 20*l.* and 100*l.*, or 60*l.*; and in like manner with regard to all higher rates, the mean between the lowest and the highest amounts that they will cover is taken as the basis of the calculation.

PROBATES.

Rate of Duty.	ENGLAND.			SCOTLAND.		
	Amount of Duty.	Number of Wills.	Amount of Capital.	Amount of Duty.	Number of Wills.	Amount of Capital.
	£. s.		£.	£. s.		£.
10s.	1,254 0	2,508	150,480	20 10	41	2,460
£2	4,370 0	2,185	327,750	110 0	55	8,250
5	6,980 0	1,396	349,000	260 0	52	13,000
8	11,816 0	1,477	553,875	1,264 0	158	59,250
11	12,980 0	1,180	619,500	1,771 0	161	84,525
15	16,335 0	1,089	762,300	1,905 0	127	88,900
22	18,370 0	835	751,500	2,200 0	100	90,000
30	30,750 0	1,025	1,281,250	3,750 0	125	156,250
40	26,800 0	670	1,172,500	2,680 0	67	117,250
50	39,950 0	799	1,997,500	3,200 0	64	80,000
60	33,480 0	558	1,953,000	4,560 0	76	266,000
80	28,880 0	361	1,624,500	2,160 0	27	121,500
100	24,300 0	243	1,336,500	2,700 0	27	148,500
120	20,760 0	173	1,124,500	1,920 0	16	104,000
140	18,760 0	134	1,005,000	980 0	7	52,500
160	16,480 0	103	875,500	960 0	6	51,000
180	17,820 0	99	940,500	720 0	4	38,000
200	30,800 0	154	1,694,000	2,000 0	10	110,000
220	21,120 0	96	1,248,000	1,980 0	9	117,000
250	22,000 0	88	1,320,000	1,250 0	5	75,000
280	15,760 0	56	952,000	840 0	3	51,000
310	17,050 0	55	1,045,000	1,240 0	4	76,000
350	30,450 0	87	1,957,500	2,100 0	6	135,000
400	28,800 0	72	1,980,000	2,000 0	5	137,500
450	20,650 0	46	1,495,000	450 0	1	32,500
525	15,150 0	28	950,000	525 0	1	37,500
600	14,400 0	24	1,020,000	..	..	..
675	6,075 0	9	427,500	675 0	1	47,500
750	23,250 0	31	1,705,000	750 0	1	55,000
900	14,400 0	16	1,040,000	900 0	1	65,000
1,050	5,250 0	5	375,000	..	..	..
1,200	15,600 0	13	1,105,000	..	..	..
1,350	12,150 0	9	855,000	1,350 0	1	95,000
1,500	19,500 0	13	1,430,000	..	..	..
1,800	7,200 0	4	520,000	..	..	..
2,100	12,600 0	6	900,000	..	..	..
2,400	4,800 0	2	340,000	..	..	..
3,000	12,000 0	4	900,000	..	..	..
5,250	5,250 0	1	375,000	..	..	..
6,000	6,000 0	1	450,000	..	..	..
7,500	7,500 0	1	550,000	..	..	..
9,000	9,000 0	1	650,000	..	..	..
15,000	15,000 0	1	1,000,000	..	..	..
Arrears . .	21,652 0	..	..	..	..	..
England . .	743,492 0	15,658	43,109,155	47,220 10	1,161	2,515,385
Scotland . .	47,220 10	1,161	2,515,385	..	..	..
Great Britain .	790,712 10	16,819	45,624,540	..	..	..

LETTERS OF ADMINISTRATION, 1838.

Rate of Duty.	ENGLAND.			SCOTLAND.		
	Amount of Duty.	Number of Estates.	Amount of Capital.	Amount of Duty.	Number of Estates.	Amount of Capital.
	£. s.		£.	£.		£.
10s.	460 0	920	32,200	..	..	..
£1	1,470 0	1,470	110,250	5	5	375
3	3,549 0	1,183	177,450	45	15	2,250
8	4,208 0	526	131,500	..	..	..
11	5,027 0	457	171,375	..	..	..
15	4,335 0	289	151,725	..	..	..
22	5,478 0	249	160,300	..	..	..
30	9,120 0	304	273,600	..	..	..
45	12,330 0	274	341,700	1,665	37	46,250
60	8,400 0	140	245,000	..	..	..
75	12,300 0	164	400,000	1,875	25	62,500
90	6,660 0	74	259,000	1,440	16	56,000
120	6,480 0	54	243,000	..	..	..
150	3,300 0	22	121,000	600	4	22,000
180	3,600 0	20	130,000	..	..	..
210	2,730 0	13	97,500	210	1	7,500
240	2,880 0	12	102,000	480	2	17,000
270	2,700 0	10	95,000	..	..	..
300	5,400 0	18	198,000	600	2	22,000
330	3,300 0	10	130,000	..	..	..
375	3,750 0	10	150,000	750	2	30,000
420	840 0	2	34,000	420	1	17,000
465	1,860 0	4	76,000	465	1	19,000
525	1,050 0	2	45,000	..	..	..
600	4,200 0	7	192,500	..	..	..
675	3,375 0	5	162,500	..	..	..
785	785 0	1	37,500	..	..	..
900	900 0	1	42,500	..	..	..
1,575	1,575 0	1	75,000	..	..	..
2,250	2,250 0	1	110,000	..	..	..
Arrears . . .	4,386 10	..	..	..	..	..
England . . .	128,698 10	6,242	4,495,600	8,555	111	301,875
Scotland . . .	8,555 0	111	301,875	..	..	..
Great Britain . .	137,253 10	6,353	4,797,475	Administrations.		
Ditto	790,712 10	16,819	45,624,540	Probates.		
	927,966 0	23,172	50,422,015	Total.		

No general mortality table for Ireland has ever been published; it is therefore not possible to offer any similar calculation for that part of the kingdom. From the subjoined table of the produce of probate and administration duties in Ireland, in 1838, it appears that 2196 estates were subjected to the tax in that year, and that the capital which they comprised was 4,465,240*l*. If we assume the same rate of mortality as that ascertained in England and Wales, it would therefore appear that the personal property in Ireland which in succession contributes to this branch of the revenue is 167,669,762*l*. This sum is probably far less than the actual value, and is offered only as an approximation to the truth.

Probates and Letters of Administration in Ireland in 1838, *no distinction being made, as in Great Britain, between the two Classes.*

Rate of Duty.	Amount of Duty.	Number of Estates.	Amount of Capital.	Rate of Duty.	Amount of Duty.	Number of Estates.	Amount of Capital.
£. s.	£. s.		£.	£. s.	£. s.		£.
0 10	238 0	476	30,940	135 0	1,890 0	14	192,500
1 10	433 10	289	43,350	160 0	1,760 0	11	178,750
2 0	404 0	202	50,500	185 0	925 0	5	93,750
3 0	405 0	135	47,250	210 0	2,310 0	11	247,500
4 0	464 0	116	52,200	260 0	1,820 0	7	192,500
5 0	385 0	77	42,350	310 0	1,550 0	5	162,500
6 0	420 0	70	45,500	360 0	360 0	1	37,500
7 0	434 0	62	46,500	460 0	920 0	2	95,000
8 0	440 0	55	47,750	550 0	1,650 0	3	165,000
9 0	646 0	72	68,400	650 0	650 0	1	65,000
15 0	2,310 0	154	192,500	750 0	750 0	1	75,000
20 0	2,520 0	126	220,540	2,000 0	2,000 0	1	187,500
35 0	4,935 0	141	387,750	2,500 0	2,500 0	1	225,000
60 0	4,020 0	67	284,750	3,000 0	3,000 0	1	275,000
75 0	3,675 0	49	306,250	Arrears .	542 10	..	..
90 0	1,980 0	22	192,500				
110 0	2,090 0	19	213,750	Total. .	48,427 0	2,196	4,465,240

The capital in respect of which the legacy duty alone has been paid in Great Britain between 1797 and 5th January 1849, was as follows:—

At 1	per cent. duty	£ 732,468,754
2	„ „	20,716,610
2½	„ „	70,884,013
3	„ „	389,549,997
4	„ „	12,692,647
5	„ „	56,045,410
6	„ „	18,604,535
8	„ „	11,868,795
10	„ „	157,179,802
	Total . .	£ 1,470,010,563

The amount of duty received by the Government on legacies, and on probates of wills and letters of administration, during the same period, viz., from 1797 to 1849, was—

	Legacies. £.	Probates and Administrations. £.
England and Wales . . .	40,015,441	31,893,438
Scotland	2,474,395	1,747,437
Ireland	1,026,400	1,417,292
Total . .	£43,516,236	£35,058,167

The annual averages of these sums, compared with the amounts for the last year of the series, were as follows:—

	Yearly Average, 1797 to 1848 £.	1848 £.
Capital subject to Legacy Duty in Great Britain .	28,823,736	44,348,721
Legacy Duty—England and Wales	801,611	1,174,166
Probate, &c., Duty—England and Wales . . .	638,322	978,820
Legacy Duty—Scotland	50,259	83,995
Probate, &c., Duty—ditto	35,712	82,147
Legacy Duty—Ireland	21,940	61,061
Probate, &c., Duty—ditto	29,449	86,052

The unequal distribution of personal property in the different divisions of the kingdom is rendered very apparent by means of these figures. An amount equal to the legacy and probate duty paid in 1849, if equally divided among the inhabitants, would have amounted to—

	s.	*d.*
In England . . .	2	5½
Scotland . . .	1	2
Ireland . . .	0	4

The different habits and dispositions of the people are also exemplified by the proportions which the duty on legacies bears to that on probates and letters of administration. In each 100*l.* of duty those proportions were, in 1849,—

	Legacy Duty.	Probate Duty.
In England . . .	54·54	45·46
Scotland . . .	50·55	49·45
Ireland . . .	41·50	58·50

We are thence led to presume that in Scotland the habit of making a distribution of property by will is nearly as prevalent as in England, while in Ireland there is exhibited much less of forethought for others in this respect than in England or Scotland.

An opinion is frequently expressed, that in the continued growth of capital in this kingdom the greatest proportion of the increase falls to the share of those who are already wealthy, while the numbers of the middle class and the poor among us are constantly increasing. That this opinion is not entitled to our implicit assent is shown by the returns of probate duty, which are so made up as to exhibit in classes the amount of property possessed by persons at their death. On examining these returns for 1848, in comparison with the amounts given in the same classes in the tables for 1833, it appears that the increase has been as follows:—

Estates not exceeding . .	£1,500	15·56 per cent.
„ between	£1,500 and 5,000	9·21 „
„ „	5,000 „ 10,000	16·38 „
„ „	10,000 „ 15,000	6·36 „
„ „	15,000 „ 30,000	18·42 „
„ above	30,000	1·13 „

It will have been seen that the average receipts from probate duty generally have been steadily and progressively advancing with the increasing wealth of the country, and it affords a strong corroboration of the above-cited proportions, that in each of four equal periods between 1833 and 1848 the yearly average duty paid on estates of 30,000*l.* and upwards has, on the contrary, been diminishing. The average sum received on such estates in the four years—

1833 to 1836,	was	£238,306
1837 „ 1840	„	230,388
1841 „ 1844	„	229,162
1845 „ 1848	„	223,962

It has been already stated, that a considerable amount of wealth, which it is usual to consider as personal property, has been invested in mortgages on real estates, and partakes therefore of the nature of real property. The sums thus invested consist of savings or accumulations made by the lenders, but capital thus disposed of must not necessarily be considered as additions to the national wealth, since the loans may have been required through the extravagance of spendthrift land-owners. There exists no general record of sums thus secured, and it would be difficult to make any satisfactory estimate of the amount. Still less would it be possible to determine the sums thus advanced to the proprietors of real estates which have been required for purposes of permanent improvement, and which therefore form a part of the national accumulations. The savings thus disposed of have, in great part, been made by persons engaged in commercial and professional pursuits, but there must be another and a far larger amount thus invested through the prudence of land-owners themselves. One capital instance of this nature was afforded by the late Earl of Leicester, better known as Mr. Coke of Norfolk, who, by the continued application of capital to improvements in the course of his long and useful life, converted a sterile domain into a highly productive estate. In this manner Lord Leicester is said to have invested sums amounting in the aggregate to at least half a million of money, and which amount has thus been added to the productive wealth of the nation. To what extent the example thus given may have been followed by those who witnessed the success of the patriotic owner of Holkham cannot, of course, be known; but as men are seldom slow to adopt what has proved itself to be greatly and notoriously beneficial, we may fairly suppose that the investments there made form but a very small part of the savings and accumulations employed in this manner. Nor has this disposal of capital been confined to the owners of the soil. Among the more intelligent class of tenants, whose interest in the farms they have occupied has been secured to them by means of leases for such periods as would justify them in expecting an adequate return, there must have been many whose capital embarked in improvements has not only been replaced to them with profit, but has permanently raised the value of the estate, and in this way has added to the real wealth of the country.

On the other hand, a considerable sum has of late years been transferred from the form of real to that of personal property through the appropriation of land to the purposes of railway construction. What the amount may be which has thus passed in the transfer, it is not possible to state, nor even to estimate with any confidence; and indeed it is very certain that if we could ascertain the amount of money which has changed hands in the operation, it would not afford us any certain information, since it is notorious that in many, or most cases, other

considerations than that of the actual value of the land purchased has been made to govern the price.

Another cause for the absorption of the yearly savings of the people, is found in the necessity which arises for providing additional house accommodation for our constantly-growing numbers. In 1815 the yearly value of dwelling-houses in England and Wales was 14,290,889*l.* for a population of 10,880,000, while in 1841 the yearly rental had increased to 23,386,401*l.*, for a population of 15,911,000, showing an increased yearly value of 9,096,512*l.* for 5,031,000 more persons, which, reckoning the rental at only 20 years' purchase, shows an outlay for this one object of more than 180,000,000*l.* in 26 years, or, on an average, seven millions pounds per annum, without reckoning the outlay for the same purpose in the other division of the kingdom. It must be evident that as the increase of the population is, in the nature of things, a growing quantity, the outlay demanded for additional dwellings must be greater from year to year, and that the amount to be thus invested will be greater in time to come than it has hitherto been; but at the rate already shown, it would appear, that the real property of England and Wales, in the form of additional dwellings, must have absorbed 240,000,000*l.* since the peace in 1815. The cost of furniture of various kinds required for these additional houses, and which retains the form of personal property, it is not possible to estimate correctly, but it would probably amount to at least one-third of the above sum.

The assessments to the income-tax upon real property in Great Britain, in 1803, were made on an annual value or rental of 38,691,394*l.*, which, at twenty-five years' purchase, represented a capital of 967,284,850*l.* In 1812 the assessments to the property-tax upon the like property were made on an annual value of 55,784,533*l.*, which at the same rate of valuation, represented a capital of 1,394,613,325*l.*; showing an apparent increase in value of 427,328,475*l.* in nine years; but it is well known that during that interval the prices of agricultural produce had risen enormously, and that rents and the apparent value of land and of buildings partook largely of that increase, which arose out of circumstances that gave an artificial value to everything which could be freely exchanged. The average price of gold in 1812, was 4*l.* 15*s.* per ounce; so that the larger valuation assigned to that year, would represent a capital of only 1,143,215,923*l.*, if estimated at the Mint price; the increased value during the nine years that followed 1803, was therefore no more than 175,931,073*l.*, which is probably still somewhat exaggerated. The assessments in 1812 were made to include tithes, and it does not clearly appear that this was done in 1803. Their annual value was assessed at 2,583,687*l.*, equal to a capital of 64,592,175*l.*, or at the Mint price of gold 52,948,586*l.*, which being deducted leaves the increase in nine years 72,982,487*l.* The assessments for the poor-

rates are not made upon the uniform principle followed in regard to the income and property taxes, and do not afford any very satisfactory means for comparing the progress made in the value of real property since the repeal of the property-tax in 1815, nor does the income tax of 1842 furnish much better means for comparing one period with another, because of the numerous classes exempted under its various provisions.

The following table (p. 608), showing the annual value assessed to the poor-rates in England and Wales, for the year ending 24th March, 1841, distinguishes land and dwelling-houses from other kinds of real property. It appears from this statement that the annual value at that time of real property thus assessed in England and Wales alone was 62,540,030*l.*, which, at twenty-five years' purchase, represents a value of 1,563,500,750*l.*

In bringing forward his proposal for an income-tax in 1842, Sir Robert Peel assumed the value of real property to be ten millions beyond the amount there shown, but Scotland is included in his estimate. His figures were—

Rent of land	£39,400,000
Rent of houses . . .	25,000,000
Tithes, mines, &c. . .	8,400,000
	£ 72,800,000

which sum, at twenty-five years' purchase, is equal to a capital of 1,820,000,000*l.*

Dr. Beeke's valuation, made in 1798, was as follows:—

Value of land in England . . .	£600,000,000
" Scotland . . .	120,000,000
Value of houses	200,000,000
Value of tithes	75,000,000
	£ 995,000,000

When Mr. Pitt brought forward his proposal for an income-tax, in the same year (1798), his calculations were based on the following estimate:—

Rent of land	£ 25,000,000
Tenants' income	18,000,000
Tithes	5,000,000
Mines, canals, &c.	3,750,000
Rent of houses	6,250,000
Profits of professions	2,000,000
Scotland—one-eighth as much as England . .	7,500,000
Income of residents derived from colonies . .	5,000,000
Dividends from public funds	15,000,000
Profits of home and foreign trades	40,000,000
	£ 127,500,000

The real property included in this estimate is only 45 millions' annual value, and at twenty-five years' purchase would represent a capital of 1,125,000,000*l.* It is evident that the sum computed as the rent of houses cannot include the yearly value of all the dwellings in England, which now amounts to more than five times the sum estimated

COUNTIES.	Total Annual Value of Real Property in 1815.	Net Rental, or Annual Value of Real Property, Assessed to the Poor Rates, for the Year ended Lady-day, 1841.				Area, in English Statute Acres.
		Landed Property.	Dwelling Houses.	All other Kinds of Property.	Total Annual Value of Real Property Assessed.	
ENGLAND.	£.	£.	£.	£.	£.	
Bedford	343,683	326,684	159,816	8,896	495,396	297,632
Berks	652,082	477,570	199,999	54,547	732,116	472,270
Buckingham	644,130	545,157	95,757	33,420	674,334	463,820
Cambridge	655,221	581,761	233,079	47,844	868,684	536,853
Chester	1,083,084	778,560	447,034	198,241	1,423,835	649,050
Cornwall	916,060	603,119	190,408	115,952	909,479	854,770
Cumberland	705,446	497,573	147,920	50,859	696,352	969,420
Derby	887,659	625,396	160,777	80,315	866,488	663,180
Devon	1,897,515	1,241,523	490,528	120,033	1,852,144	1,636,450
Dorset	698,396	550,567	143,125	36,542	735,234	627,220
Durham	791,359	516,971	213,986	200,391	931,348	679,530
Essex	1,556,836	1,018,650	445,953	121,116	1,585,719	979,000
Gloucester	1,463,260	898,957	739,201	144,039	1,782,197	790,470
Hereford	604,614	552,383	102,921	25,931	681,235	543,800
Hertford	571,107	386,341	220,076	61,293	667,710	400,370
Huntingdon	320,188	236,633	71,221	9,864	317,718	241,690
Kent	1,644,179	1,044,999	878,472	188,204	2,111,675	972,240
Lancaster	3,087,744	1,402,208	2,449,196	1,415,202	5,266,606	1,117,260
Leicester	902,217	630,914	221,771	21,114	933,799	511,340
Lincoln	2,061,830	1,766,740	300,348	60,219	2,127,307	1,663,850
Middlesex	5,595,537	304,653	6,680,202	308,514	7,293,369	179,590
Monmouth	295,097	251,019	119,974	50,057	421,050	324,310
Norfolk	1,540,952	1,209,181	436,758	197,885	1,893,824	1,292,300
Northampton	942,162	748,116	158,621	33,658	940,395	646,810
Northumberland	1,240,594	740,609	324,159	261,646	1,326,414	1,165,430
Nottingham	737,230	563,840	252,230	40,605	856,675	525,800
Oxford	713,147	528,242	149,658	17,852	695,752	467,330
Rutland	133,487	106,119	9,104	3,911	119,134	97,500
Salop	1,037,988	874,316	213,251	82,441	1,170,008	864,360
Somerset	1,900,651	1,361,547	567,776	121,193	2,050,516	1,028,030
Southampton	1,130,952	723,087	541,229	97,710	1,362,026	1,018,550
Stafford	1,150,285	900,102	683,762	422,896	2,006,760	736,290
Suffolk	1,127,404	912,062	302,059	83,835	1,297,956	918,760
Surrey	1,579,173	376,644	1,409,180	141,669	1,927,493	474,480
Sussex	915,348	611,320	472,443	85,467	1,169,230	907,920
Warwick	1,236,727	713,390	300,427	595,930	1,609,747	567,930
Westmoreland	298,199	221,054	37,374	7,907	266,335	485,990
Wilts	1,155,459	899,878	219,931	55,807	1,175,616	869,620
Worcester	799,605	605,610	323,007	66,625	995,242	459,710
York, East Riding	1,190,326	760,942	271,258	79,607	1,111,807	763,800
„ North Riding	1,145,252	845,547	131,681	34,657	1,011,885	1,275,820
„ West Riding.	2,392,406	1,449,007	1,414,800	460,995	3,324,802	1,629,890
Totals of England	49,744,622	30,448,991	22,991,472	6,244,949	59,685,412	31,770,615
WALES.						
Anglesea	92,589	164,637	15,785	11,191	191,613	173,440
Brecon	146,539	170,397	52,911	19,355	242,663	482,560
Cardigan	141,889	143,330	16,929	6,852	167,111	432,000
Carmarthen	277,455	285,188	31,853	21,362	338,403	623,360
Carnarvon	125,198	125,587	34,924	22,655	183,166	348,160
Denbigh	225,446	262,635	42,563	30,341	335,539	405,120
Flint	153,930	147,876	40,561	25,634	214,071	156,160
Glamorgan	334,192	226,652	69,043	80,787	376,482	506,880
Merioneth	111,436	99,281	12,936	4,248	116,435	424,320
Montgomery	207,286	247,350	25,688	9,302	282,340	536,960
Pembroke	219,589	221,167	39,115	15,830	276,112	330,400
Radnor	99,717	112,046	12,621	5,986	130,653	272,640
Totals of Wales	2,153,801	2,206,146	394,929	253,543	2,854,618	4,752,000
Totals of England and Wales	51,898,423	32,655,137	23,386,401	6,498,492	62,540,030	36,522,615

by Mr. Pitt in 1798; that estimate, in all probability, excluded farm-houses, and all others below a certain rental. The assessments actually made on real property under the income-tax of 1842, although they exclude properties of less yearly value than 150*l.*, have far exceeded in amount the estimate formed by Sir Robert Peel, as appears by the following statement. The value estimated at 25 years' purchase of the remaining part of real property in Great Britain, in 1842, is thus shown to amount to 2,382,112,425*l.*

Annual Value of Real Property assessed to the Property and Income Tax, for the Year ended 5th April, 1843.

	England.	Scotland.	Total.
	£.	£.	£.
Land	40,167,088	5,586,528	45,753,616
Houses	35,556,400	2,919,338	38,475,738
Tithes	1,960,330	..	1,960,330
Manors	152,217	..	152,217
Fines	319,140	902	320,042
Quarries	207,009	33,474	240,483
Mines	1,903,794	177,593	2,081,337
Iron Works	412,022	147,413	559,435
Fisheries	11,105	47,810	58,915
Canals	1,229,202	77,891	1,307,093
Railways	2,417,610	181,333	2,598,943
Other Property	1,466,816	309,480	1,776,296
	85,802,735	9,481,762	95,284,497

In a return made to an order of the House of Lords in May, 1841, for an account of the amount of rental assessed to the sewers-rate in the metropolitan counties of England, and which order was only partially obeyed, it is stated that the rental so assessed in the undermentioned divisions amounted to 5,084,174*l.*, viz.:—

	£.
Westminster and adjacent parts of Middlesex	2,788,190
Holborn and Finsbury, Shoreditch and Norton Folgate	1,316,013
Tower Hamlets division	888,596
St. Katharine's precinct	12,964
Poplar	78,411
	£ 5,084,174

The Commissioners for Sewers in the City of London did not make any return to this order; but in the Report made in 1837 by the Commissioners for inquiring concerning Municipal Corporations, we find a statement of the rental assessed for sewers-rates in the different wards of the city at different periods, viz.:—

Years.	£.
1771	457,701
1801	507,372
1831	792,904

The amount assessed in 1831, added to the above sum (5,084,175*l.*), makes a yearly rental of 5,877,078*l.*, thus leaving only 1,416,291*l.* to make up the sum assessed to the poor-rate in the whole of Middlesex

in the year 1840-41, which gave good reason for believing that the assessments for poor-rates were made upon less than the actual rental, and that consequently the value of real property in the kingdom must be greater than that given in the table of the Poor Law Commissioners. We learn, from the above returns of the rental of the City of London, that in the thirty years from 1771 to 1801 the annual value of houses increased only 49,671*l.*, or 10·85 per cent.; while in the first thirty years of the present century the increased yearly value was 285,532*l.*, or 56·27 per cent. This last-mentioned increase, valued as before at twenty-five years' purchase, represents a value of 7,138,300*l.* of real property created in thirty years within the limits of the City of London alone. The increased rental of real property in England and Wales during the thirty-five* years that we have now been at peace in Europe exceeds forty millions, representing a capital of 1000 millions.

The following statement of the valuation made for the county-rate of the townships which now form the parliamentary borough of Manchester, exhibits a most extraordinary rapidity of increase in the rental of real property since the peace. It is not probable than an equal rate of increase has been experienced in any other locality:—

Townships.	1815	1829	1841
	£.	£.	£.
Manchester	303,732	371,749	721,743
Chorlton-upon-Medlock	19,484	66,645	137,651
Hulme	9,359	19,678	75,733
Ardwick	11,097	13,004	46,471
Cheetham	8,524	24,000	38,983
Berwick	1,180	831	1,474
	353,376	495,997	1,022,055

The population of the above townships was—

Years.	Population.
1811	89,104
1831	182,016
1841	234,925

The increased value between 1815 and 1829, at twenty-five years' purchase, amounted to 3,565,525*l.*, or 40·35 per cent. Between 1829 and 1841 the increase, similarly valued, has been 13,151,450*l.*, or 106·06 per cent. The total increase since the peace in 1815 has been in this one borough, 16,716,975*l.*, or 189·22 per cent.: the population in the same time has increased about 120 per cent.

The borough of Salford, which, for all practical purposes, must be considered as a part of Manchester, exhibits a still more extraordinary advance. The value of property assessed to the county-rate in that borough was, in 1815, 918,397*l.*; and in 1841, 2,703,292*l.*, showing an

* See table, page 608.

increase of 1,784,895*l.*, or 194·35 per cent., and representing an accumulation of capital equal to 44,622,375*l.*

It will hardly admit of question whether the sums deposited in Savings' Banks should be considered as additions made to the accumulated wealth of the nation. That those deposits are savings made by the individual contributors cannot, of course, be questioned; when placed in the hands of the Government Commissioners for investment in public securities, it is true that the capital of others previously so invested is thereby set free, but it does not follow that when this change is made the money is dissipated; it may, and most probably does, find productive employment elsewhere. One thing is clear, viz., that the sums so set free would equally have been required, although the savings' banks deposits had never been made, and therefore that these are, to their full extent, additions to the capital of the country. The advantages of these institutions, considered only in their economical effect, are very great; but these advantages sink into insignificance in comparison with the moral benefits they have conferred. On the one hand, the feeling of honest independence which must, to some extent, be felt by every depositor, cannot fail to have a beneficial influence upon his character; he is no longer forced, at the first approach of sickness or adversity, to become a candidate for the pauper's portion, but can draw upon a store of his own accumulating for sustenance. On the other hand, every person who intrusts his savings to these institutions becomes, by that means, additionally and personally interested in the stability of the institutions of the country.

Banks for savings cannot date their origin earlier than the beginning of the present century. They have been said to owe their rise to the Rev. Joseph Smith, of Wendover, who, in the year 1799, circulated proposals in his parish to receive any sums in deposit during the summer, and to return the amount at Christmas, with the addition of one-third to the sum as a bounty or reward for the forethought of the depositor. This was clearly not a savings' bank according to what is now understood by the term, neither would such a plan, if ever so extensively followed out—and it does not appear probable that Mr. Smith could have many imitators—be the means of causing any but temporary savings; the very bounty given would insure the withdrawing of the deposits, and most probably the disbursement of the money. The first savings' bank was established in 1804, at Tottenham, in Middlesex, by Mrs. Priscilla Wakefield, and was called the Charitable Bank. In this bank deposits were received, and 5 per cent. interest was allowed upon their amount—a rate which left a considerable loss to the benevolent individuals by whom Mrs. Wakefield was joined in the undertaking. The society next formed of which we have any account was

opened in 1805, at Bath, chiefly through the instrumentality of ladies, for receiving deposits from female servants. The good resulting from these efforts was in due time made manifest: and the successful example thus set was so far followed that in the year 1817 there were seventy savings' banks in operation in England, four in Wales, and four in Ireland. In that year Acts of Parliament were passed to encourage the establishment of such institutions, and to place the funds under the safeguard of the State. By subsequent Acts the provisions were extended to Scotland and the Channel Islands.

The progress of these banks, as shown by the sums received on their account by the Commissioners for the Reduction of the National Debt, to the end of 1829, was as follows:—

	£.
Received from 6th August, 1817 (the date of the first Act for encouraging Savings' Banks), to 5th January, 1818	338,239
Received in the year ending 5th January, 1819	1,567,987
" " " 1820	1,019,612
" " " 1821	705,106
" " " 1822	1,205,980
" " " 1823	1,628,166
" " " 1824	1,832,448
" " " 1825	2,586,219
" " " 1826	1,361,240
" " " 1827	536,155
" " " 1828	973,641
" " " 1829	931,361
" " " 1830	450,137

Detailed accounts have since been made up to the 20th of November in each year, of which the following is a summary:—

Year ending 20th Nov.	ENGLAND.		WALES.		IRELAND.		TOTAL.	
	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.
		£.		£.		£.		£.
1830	367,812	12,287,606	10,204	314,903	34,201	905,056	412,217	13,507,565
1831	380,130	12,354,617	10,374	322,546	38,999	1,042,332	429,503	13,719,495
1832	373,704	11,956,289	10,014	301,509	43,755	1,178,201	427,473	13,435,999
1833	402,607	12,680,512	11,015	329,887	49,170	1,327,122	462,792	14,337,521
1834	434,845	13,582,102	11,183	336,976	53,179	1,450,766	499,207	15,369,844
1835	466,862	14,491,316	12,173	356,135	58,482	1,608,653	537,517	16,456,104

Year ending 20th Nov.	ENGLAND.		WALES.		SCOTLAND.		IRELAND.	
	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.
		£.		£.		£.		£.
1836	515,444	16,491,949	13,110	422,585	6,753	74,086	64,019	1,817,264
1837	544,440	17,178,041	13,963	455,846	13,553	160,902	64,101	1,829,226
1838	595,425	18,566,490	15,232	498,359	22,646	279,994	69,933	2,048,469
1839	622,468	19,246,221	15,893	525,320	34,739	436,032	75,206	2,218,239
1840	662,338	20,203,438	15,825	521,918	43,737	538,961	76,155	2,206,733
1841	695,791	21,036,190	16,220	527,688	50,619	608,509	78,374	2,302,302
1842	725,374	21,780,373	16,434	531,928	54,303	652,129	80,604	2,354,906
1843	773,551	23,344,273	17,077	555,849	62,236	830,083	82,486	2,447,110
1844	[illegible]	25,112,865	18,690	599,796	69,824	1,043,183	91,243	2,749,017
1845	[illegible]	25,930,266	18,916	618,002	82,203	1,278,929	96,422	2,921,581
1846	[illegible]	26,779,817	20,141	674,657	90,301	1,383,866	96,650	2,924,910
1847	[illegible]	25,838,109	20,978	697,840	88,630	1,182,518	84,120	2,488,713
1848	[illegible]	24,985,730	21,195	692,495	86,056	1,081,110	50,024	1,355,801
1849	[illegible]	25,480,508	21,421	678,313	91,669	1,154,338	45,839	1,223,851

Summary of the foregoing Table.

Year ending 20th November.	TOTAL.	
	Depositors.	Amount.
		£.
1836	599,326	18,805,884
1837	636,066	19,624,015
1838	703,236	21,393,312
1839	748,396	22,425,812
1840	798,055	23,471,050
1841	841,204	24,474,689
1842	874,715	25,319,336
1843	935,530	27,177,315
1844	1,012 047	29,504,861
1845	1,062,930	30,748,868
1846	1,108,025	31,743,250
1847	1,095,554	30,207,180
1848	1,056,881	28,114,136
1849	1,087,354	28,537,010

The amount paid by the public for interest on the sums due to the trustees of savings' banks and friendly societies, from 6th August, 1817, to 20th November, 1841, was 13,086,472*l.* 16*s.* 9*d.*; and as the amount of dividends in public securities invested by the Commissioners for the Reduction of the National Debt in respect of the same amounted only to 11,191,323*l.* 14*s.* 1*d.*, there had resulted a loss at that time to the public from these institutions of 1,895,149*l.* 2*s.* 8*d.*, by reason of the rate of interest allowed being greater than that yielded by the securities in which the deposits have been invested. The value of these securities, according to a return made to Parliament in May, 1842, was—

£.			£.
6,436,322	Consolidated 3 per Cents., at	88¾ per cent.	5,712,236
4,134,970	Reduced 3 per Cents.	„ 87¾ „	3,628,435
5,389,900	3½ per Cents., 1818	„ 97½ „	5,255,153
2,601,700	Reduced 3½ per Cents.	„ 97⅞ „	2,533,405
5,442,721	New 3½ per Cents.	„ 98¾ „	5,374,687
1,031,589	Old 3½ per Cents.	„ 97½ „	1,003,219
963,950	Exchequer Bills		963,950
£26,001,152			£24,471,085

The following statement, made up to the 20th November, 1845, shows the number of depositors in different classes in each division of the kingdom, and the average amount invested by each depositor in the several classes, from which it appears that the number of persons who have thus constituted themselves public creditors is three times as great as that of persons entitled to dividends on the national debt at the same period, viz.:—

Number entitled to dividends on the 10th Oct., 1844,	85,115
„ „ 5th Jan., 1845,	109,978
Total	195,033

DEPOSITORS.	ENGLAND.			SCOTLAND.		
	Number of Depositors.	Amount of Investments.	Average Amount Invested by each Depositor.	Number of Depositors.	Amount of Investments.	Average Amount Invested by each Depositor.
		£.	£.		£.	£.
Not exceeding £20	483,735	3,124,311	6	61,694	320,854	5
" " 50	211,546	6,539,850	31	15,105	456,305	30
" " 100	95,742	6,614,575	69	5,545	380,264	68
" " 150	33,309	4,010,132	120	844	101,321	120
" " 200	19,194	3,279,687	171	279	46,585	167
Exceeding 200	2,859	670,193	234	1	300	300
Number and amount of individual depositors in savings' banks	846,445	24,238,748	29	81,170	1,185,545	15
Number and amount of charitable institutions	10,171	539,627	53	635	35,994	56
Number and amount of friendly societies in account with savings' banks	8,773	1,151,891	131	398	57,483	144
Total	865,389	25,930,266	30	82,203	1,278,929	16

DEPOSITORS.	WALES.			IRELAND.		
	Number of Depositors.	Amount of Investments.	Average Amount Invested by each Depositor.	Number of Depositors.	Amount of Investments.	Average Amount Invested by each Depositor.
		£.	£.		£.	£.
Not exceeding £20	9,461	74,215	8	43,281	331,647	8
" " 50	5,647	172,710	30	35,311	1,078,349	31
" " 100	2,130	146,850	69	12,007	793,736	66
" " 150	662	79,338	120	3,109	372,909	120
" " 200	291	49,118	168	1,539	256,561	168
Exceeding 200	40	9,671	242	101	22,916	227
Number and amount of individual depositors in savings' banks	18,231	531,902	29	95,348	2,858,280	30
Number and amount of charitable institutions	220	13,582	62	669	41,798	62
Number and amount of friendly societies in account with savings' banks	465	72,608	156	405	21,583	53
Total	18,916	618,092	33	96,422	2,921,581	30

DEPOSITORS.	TOTAL.		
	Number of Depositors.	Amount of Investments.	Average Amount Invested by each Depositor.
£.		£.	£.
Not exceeding 20	597,631	3,851,027	6
" " 50	267,609	8,247,304	31
" " 100	113,727	7,815,347	69
" " 150	37,924	4,563,790	120
" " 200	21,302	3,633,971	171
Exceeding 200	3,001	702,980	234
Number and amount of individual depositors in savings' banks	1,041,194	28,814,455	28
Number and amount of charitable institutions	11,695	630,898	54
Number and amount of friendly societies in account with savings' banks	10,041	1,303,515	131
	1,062,930	30,748,868	28
Number and amount of friendly societies in direct account with the Commissioners for the Reduction of the National Debt	488	1,913,956	..
Gross Total	1,063,418	32,661,924	..

The rate of interest allowed by the public to depositors was lowered from 20th November, 1844, to 2*d.* per centum per diem, or 3*l.* 0*s.* 10*d.* per centum per annum.

A savings' bank was established at St. Helier, in the island of Jersey, in January, 1835, between which time and the 20th November, 1841, deposits were made therein by 3206 persons, out of a total population of 47,556, to the amount of 58,630*l.* The accounts kept at this institution distinguish the occupations of depositors, a practice which is followed by the managers of some of these institutions in England. It is to be wished that all would adopt this course, and thus throw light upon the comparative condition and habits of the various divisions found among our labouring population. The most numerous class of depositors in the Jersey savings' bank are domestic servants, if we except sums invested by parents in the names of their children. Next to servants stand milliners, shopwomen, and sempstresses; these three classes furnishing more than half in number, and nearly one-half in amount, of the entire deposits.

The published accounts of the managers of the Manchester and Salford bank for savings, for the year ending 20th November, 1842, also gave these particulars in detail. Having reference to so large and

important a population as that of the manufacturing metropolis of England, it is thought desirable to insert the following abstract:—

Number of Depositors.	Sums deposited.	Total Amount of each Class.
		£. s. d.
8,775	Not exceeding £20 each	56,990 10 4
3,835	Above £20, and not exceeding £50	118,200 10 10
1,484	„ 50 „ 100	102,826 0 9
498	„ 100 „ 150	60,597 13 10
332	„ 150 „ 200	55,977 9 8
13	Exceeding £200	4,148 7 10
14,937	Individual depositors	398,740 13 3
86	Charitable societies	4,614 5 0
172	Friendly societies	12,928 8 0
15,195	Total number of accounts and deposits	416,283 6 3

Classification of Depositors.	Number.	Amount of Deposits.
		£. s. d.
Domestic servants (nearly 7 in 8 females)	3,063	80,009 5 10
Clerks, shopmen, warehousemen, and porters	1,511	41,336 14 4
Minors	3,033	45,153 12 2
Milliners, dress-makers, and needle-women	430	11,139 9 8
Shoemakers, tailors, and hatters	309	8,685 9 1
Cotton-spinners, weavers, and their assistants	911	25,531 16 10
Silk-spinners, weavers, and their assistants	131	3,530 0 0
Calico-printers, bleachers, dyers, and packers	412	13,096 14 7
Engravers and pattern designers	195	5,346 3 6
Mechanics and handicraftsmen	816	23,759 14 3
Bookbinders and letter-press printers	73	1,507 12 0
Masons, bricklayers, and their labourers	390	10,497 13 7
Joiners, coach-makers, and cabinet-makers	473	15,391 18 8
Cab and omnibus drivers, mail-guards, &c.	41	1,588 19 2
Policemen, soldiers, and pensioners	94	2,654 4 3
Professional teachers and artists	323	10,312 16 6
Tradesmen and small shopkeepers	538	20,072 2 2
Farmers, gardeners, and their labourers	350	13,819 9 11
Descriptions not specified	1,844	65,306 16 9
	14,937	398,740 13 3

CHAPTER III.

INVESTMENTS OF ACCUMULATION FOR PUBLIC OBJECTS.

Buildings for Public Worship in England and Scotland—By Parliamentary Grants—By Corporate Bodies—By Individuals—Bridges—Colleges—Hospitals, &c.—Improvement of Towns—Liverpool—Newcastle-on-Tyne—Docks—Canals—Railways—Turnpike Roads—Gas Works.

It might occupy much space, and would afford but little profit, to attempt making a minute enumeration of the various forms in which the savings of individuals in this country have been invested. Any such enumeration must almost necessarily be incomplete, and even inaccurate, for this, among other reasons, that it would be impossible to determine, with reference to many of such investments, in what degree they can truly be considered in the light of accumulated capital, and in what degree they should be accounted as a part of current expenditure, serving to repair the ravages of time and accident. It would, for example, be absurd to consider as accumulated capital the cost of the 5,000,000 tons of mercantile shipping built and registered within the present century, and which exceeds by more than forty per cent. the whole existing mercantile navy of the kingdom. The same remark might be made, although its propriety may not be so immediately obvious, with regard to other and less perishable works of utility or of ornament. It is, however, a quality inherent in everything of human production, to be, in some degree, perishable; and this fact must be taken into account in every estimate of this kind that may be formed. The magnificent and substantial structure which has within the last few years taken the place of the old London Bridge, seems built to last, unimpaired, for ages, and yet nothing can be more certain than its future decay, which might have been prophesied with perfect confidence, even in the absence of the corroborative evidence presented by the very necessity for its construction in the stead of a work which may at one time have been considered equally indestructible.

It will not be correct, on the other hand, to consider in the light of current expenditure the cost of all works constructed in substitution for others, and this is especially the case in regard to such a structure as

London Bridge, the probable duration of which will be such that a very inconsiderable sum, if suffered to accumulate at interest, would suffice to produce its fellow whenever the ravages of time shall render its renewal necessary. If it were required to apportion correctly the value of public buildings of this character, distinguishing the part that is of the nature of expenditure from the part which is accumulation, it would be necessary to make periodical valuations of the national works and monuments; and as no advantage could follow from such an undertaking that would be adequate to the labour it would occasion, we may conclude that the task will never be accomplished.

The object proposed on this occasion is not to determine with any pretension to minute accuracy the amount of the national accumulations, but merely to take a rapid view of some of the more important objects to which they have been applied. Some inquiry on this subject does indeed appear necessary, in order to meet the very common but yet very unaccountable fallacy, that as no new loans have been for some time contracted by the Government in order to supply deficiencies in the public revenue, there are no channels open for the employment of surplus gains. Persons who argue thus, do not suffer themselves to reflect sufficiently, or they could hardly fail to perceive that the fact of loans being required to make good deficient revenues, affords in itself an indication that the power of accumulating exercised by individuals is limited and counteracted by the exigencies of the State, which thus disburses, and in part destroys, that which, being otherwise employed as capital, would in various ways give additional energy to the springs of national industry.

A very large sum has of late years been devoted to the permanent improvement of the land in the kingdom. The yearly value of land assessed to the property tax in 1841 exceeded the value assessed in 1815 by 19,081,669*l.*, which, computed at only 20 years' purchase, gives an amount of 380,000,000*l.* in 26 years; and this does not include the sums so applied in Ireland. A very large proportion of this increased value has been given to the land by means of the capital bestowed upon it.

We can do little more, in pursuing this inquiry, than take a rapid glance at the works of a permanent character that have been paid for out of the public revenue, *i. e.*, by the indirect contributions of the great body of the people.

Among the most important of these works must be placed buildings erected for public worship. Large sums have of late years been expended in the erection of such buildings, partly under the direction of Parliamentary Commissions, by means of sums voted for the purpose by the House of Commons, viz., 1,000,000*l.* voted in 1813, and 500,000*l.* in 1824. It appears from a return made to Parliament by the Com-

missioners, in July, 1841, that up to that time there had been completed, by means of their help, 281 new churches and chapels in England, and that sixteen other churches were then in progress of erection. In these works they had spent the sum of 2,001,289*l.*, which included 484,800*l.* raised in the different localities by voluntary contributions, local rates, and loans. The estimated cost for the completion of the sixteen churches and chapels then in the course of erection, was stated to be 44,084*l.* These sums, large as they are, do not comprise the whole of what has been expended in building sacred edifices during the period embraced in this inquiry. In addition to the sums granted by the Parliamentary Commissioners, 1,500,000*l.* in Exchequer Bills have been advanced on loans to other parties for the same purpose. It must not be imagined that the duty of providing places for the public worship of our rapidly-increasing population was neglected up to the year in which the aid of Parliament was first given. There is not any record kept of the number of such new buildings; but judging from what has passed under his own observation, every one who is old enough to have borne a part in the business of life during the earlier years of this century, must be of opinion that the number was very considerable. There have been besides very many cases, both before and since the above-described interference of Parliament, in which churches and chapel shave been built and endowed by means of funds raised either by voluntary subscriptions, or under the powers of private local acts,* and not a few churches have, in the same period, been erected through the munificence and piety of individuals, but of all these not any estimate can be formed. It is equally impossible to ascertain the number or the cost of places of worship built by various denominations of worshippers not in communion with the national church, the cost of which buildings is wholly provided by the voluntary contributions of the congregations. If all these matters are duly considered, there appear to be grounds for believing that the capital invested in these sacred edifices has fully kept pace with the increase of the national wealth.

In addition to the sums above mentioned, and which have been expended in England, a parliamentary grant of 50,000*l.* was made in 1825, for building churches in the Highlands and Islands of Scotland; and various grants were made for the like purpose in Ireland, where, between 1801 and 1820, there was thus expended of the public money 749,551*l.*

The following list of some of the principal public works and buildings erected of late years (chiefly in the metropolis), will at least serve to show that we of the present day are not unmindful of the propriety of giving to those who are to succeed us in this world some evidence of

* The expenditure of the corporation of Liverpool for building churches amounted in the ten years ending with 1832 to more than 120,000*l.*

our desire to be favourably remembered for the splendour, the durability, and the practical utility of works which have engaged our attention, and which have afforded a field for displaying the skill and genius of our architects and engineers:—

Queen's Palace at Pimlico.
Breakwater, Plymouth.
London Bridge and approaches.
Southwark Iron Bridge.
Vauxhall Iron Bridge.
Waterloo Bridge.
Menai Suspension Bridge.
Hammersmith Suspension Bridge.
Thames Tunnel at Rotherhithe.
The Houses of Parliament.
Custom House, London.
Custom House, Liverpool.
General Post Office, London.
National Gallery, Trafalgar Square.
London University College.
King's College, London.
Bethlehem Hospital.
North London Hospital.
Charing Cross Hospital.
The Royal Exchange.

A very large part of the public buildings of England are erected at the cost of local bodies, but the funds out of which their cost is defrayed are not less, therefore, to be considered as savings or accumulations. Even in cases where money is borrowed for the purpose, it must be supplied through the economy of individuals, who thus find a profitable channel for the employment of their surplus funds.

Hardly any one of the large manufacturing and trading towns of the kingdom can be mentioned which does not afford this proof of the existence and the employment of increasing wealth. In the town of Liverpool alone there has been expended, during the last half century, upwards of 1,600,000*l.* "in widening streets, and in erecting churches, charity schools, markets, and other public buildings." Liverpool is a very wealthy corporation, having an income of upwards of 320,000*l.* per annum, and it would not be correct to cite its example as a fair measure of what has been done in other places. There is, however, another town in the northern part of England, where, within the last few years, capital to even a greater amount than that expended during half a century in Liverpool, has been employed for its embellishment. In the very heart of the town of Newcastle-on-Tyne, surrounded by buildings, and concealed from general view, there was, within the last few years, a large unoccupied space, called the Nun's Field, and described as a "most desolate and neglected wilderness." This space, through the genius and enterprise of one man, has now been converted into streets, which, for architectural beauty, may challenge comparison with anything to be found in any city of Europe. The cost of this unexampled improvement is said to have amounted to above 2,000,000*l.*

In the metropolis, as might reasonably be supposed, the investment of capital for such objects by Government, by various municipal and charitable bodies, by public companies, and by individuals, has been to a greater extent. For the construction of docks alone there have been expended in London, since the beginning of this century, more than 8,000,000*l.* The four bridges built during the same time have cost

4,000,000*l.*; and the tunnel under the Thames at Rotherhithe has absorbed 614,000*l.* The new Post Office has cost 499,360*l.*

The greatest number of the canals now in operation in England were constructed during the second half of the last century, when the spirit of enterprise was so much exerted in this direction that canals were opened in almost every quarter that offered sufficient facilities for their execution, and that promised a fair remuneration for the capital expended. The number of these works undertaken since the beginning of the present century has consequently been small in comparison with previous undertakings, but much has, nevertheless, been done for the extension and improvement of lines previously opened. It is not possible to ascertain with exactness the amount of money that has thus been invested in this description of property, but after a careful examination of the various Acts of Parliament that have been passed since the beginning of 1801, authorizing the raising of money for the purpose, it may be stated that the amount thus invested within the kingdom has not been less than eleven millions of pounds, including in this amount sums expended for improving navigable rivers, and the cost also of that truly magnificent work the Caledonian Canal, which alone amounted to rather more than 1,000,000*l.* Of the whole sum invested in this description of property, about 4,500,000*l.* has been applied to the construction of new, and about 6,500,000*l.* to the extension and improvement of old works. The amounts here stated are probably much within the truth, as they include only the sums which the different adventurers have been authorized to raise in the form of shares, without taking any account of the further amounts which it is customary to allow the shareholders to borrow on the security of their property, and of which permission it is well known that a great proportion of the companies have availed themselves to the full extent of their authority.

The extension that has been given to the railway system in this country, during the last twenty years, has called for the investment of far larger sums than have been absorbed by canals. The intention of the first promoters of railways was to provide for the conveyance of goods by a cheaper mode than was offered by means of canals. It is singular that with regard to both these expectations the results have proved them to be without foundation. Hitherto railroads have not been found to act in injurious competition with water conveyance for the transmission of goods, and the cost of their construction has been, beyond all comparison, greater than anything known in the history of canal-cutting. With the exception of the great coal-fields of England, in which railroad conveyance is necessarily used in preference to canals, it is not often found profitable to substitute land for water conveyance.

An exception must also be made in the peculiar case of the Liverpool and Manchester Railway, on which, from the nature of the trade between the two towns, time often forms so important an ingredient that the higher rate of charge is submitted to in order to secure the more important object of a favourable market. But even in this case not any falling off has been experienced in the tonnage conveyed upon the canal, which, on the contrary, has even increased,—the growth of the manufactures of Manchester and the surrounding district having been so great that, but for the facility afforded by the railroad, it would have been hardly possible to convey the quantities of raw materials and manufactured goods which now pass between the factories and the port of shipment. The advantage of this line of railroad for the conveyance of merchandise during periods of frost may be readily imagined.

It may be seen, by referring to a table already given (page 327), that the number of railways constructed under Acts of Parliament before 1826 was only 29, and that the capital expended upon them fell somewhat short of 1,500,000*l.* The works undertaken since have most of them been of far greater importance. One of them, that between London and Birmingham, has cost 6,000,000*l.* The outlay on the Great Western Railway has greatly exceeded that sum. The capital expended in railways generally, and the further sums of which the investment has been authorized by Parliament up to the close of 1849, have already been stated (*see* page 327).

The system of management employed in this country for the construction and maintenance of turnpike roads, renders it impossible to ascertain the amount of capital invested in that branch of public works. The whole service is performed in various localities or sections, under the direction of trustees, selected generally from among gentlemen who reside within the districts through which the roads are carried, and no general superintendence or control exists which would afford any precise information of a statistical kind on the subject. The result of inquiries made by direction of the House of Commons in 1818 and 1829, has already been given (Section iii. Chap. ii.), from which it appears that the addition made to our turnpike roads between these two years was 1000 miles. If the same rate of increase had been realized throughout the years that have elapsed of the present century, there would now be 4,450 miles more of turnpike roads in England and Wales than existed at the beginning of 1801; and assuming that the cost of construction was on the average 1760*l.* per mile, the sum mentioned in evidence before a Committee of the House of Commons, in 1836, by Sir James M'Adam, as the average cost of road-making, the capital invested in their construction must have amounted to 7,832,000*l.* This, however, is not one of the subjects upon which we can assume the

operation of any constant law. Every new line of road that is opened diminishes the necessity for additional undertakings. In the infancy of a country the necessity for the construction of roads in all directions throughout its extent is great and urgent, but the time may well arrive in which the same country may be fully provided with these lines of communication, and when nothing more is needed than the maintenance or improvement of existing roads. The propriety of this remark is apparently confirmed by the fact that the number of road-bills that received the royal assent in the five years from 1829 to 1833 was 340; while in the following five years, from 1834 to 1838, the number was only 121.

Under an Act of Parliament (3 and 4 Wm. IV., c. 80), returns were made of the income and expenditure of the several turnpike trusts in England and Wales, and from these returns the following particulars are derived:—

	1834	1835	1836	1837	1838
	£.	£.	£.	£.	£.
Total Income	1,753,544	1,796,524	1,776,586	1,733,291	1,670,475
Total Expenditure	1,828,730	1,777,368	1,780,349	1,780,857	1,670,487
Total Debts	8,453,391	8,517,813	8,577,132	8,670,399	8,735,416
Paid for Land	20,185	27,839	14,205	18,580	14,919
Paid for Improvements	217,152	211,808	204,740	208,093	154,630

	1839	1840	1841	1842	1843
	£.	£.	£.	£.	£.
Total Income	1,668,799	1,654,887	1,574,517	1,526,922	1,473,021
Total Expenditure	1,666,106	1,659,153	1,551,335	1,528,258	1,434,434
Total Debts	8,774,927	8,806,085	8,818,846	8,836,568	8,772,056
Paid for Land	15,194	16,147	12,162	7,942	3,770
Paid for Improvements	142,863	159,712	105,246	111,449	87,032

The returns do not embrace a later period than 1843, and they do not contain any statement of the extent of new roads constructed, nor of the length of those in existence.

During the last year of the series (1843) the income was derived from—

	£.	
Revenue received from tolls	1,348,084	
Parish composition in lieu of statute duty	28,152	
Estimated value of statute duty performed	6,012	
Revenue from fines	555	
Revenue from incidental receipts	31,651	
Borrowed on security of tolls	58,567	
		£1,473,021

The expenditure was for—

	£.	
Manual labour	343,085	
Team labour and carriage of materials	147,142	
Materials for surface repairs	204,014	
Land purchased	3,770	
Damage done in obtaining materials	8,024	
Tradesmen's bills	55,041	
Salaries of treasurers, clerks, and surveyors	92,486	
Law charges	26,040	
Int rest of debt	291,032	
Improvements	87,033	
Debts paid off	114,723	
Incidental expenses	56,032	
Estimated value of statute duty performed	6,012	
		£1,434,434

During the year 1847 the income of turnpike trusts was derived from—

	£.	
Revenue received from tolls	1,241,130	
Parish composition in lieu of statute duty	30,735	
Estimated value of statute duty performed	6,211	
Revenue from fines	270	
Revenue from incidental receipts	32,715	
Borrowed on security of tolls	6,027	
		£1,317,088

The expenditure was for—

	£.	
Manual labour	321,748	
Team labour and carriage of materials	130,234	
Materials for surface repairs	199,475	
Land purchased	1,759	
Damage done in obtaining materials	6,059	
Tradesmen's bills	47,470	
Salaries of treasurers, clerks, and surveyors	89,641	
Law charges	21,285	
Interest of debt	272,345	
Improvements	32,017	
Debts paid off	149,491	
Incidental expenses	53,979	
Estimated value of statute duty performed	6,211	
		£1,331,714

The capital embarked in Gas Companies in London alone exceeds two millions of money; and as there is now hardly a town of any magnitude in England and Scotland in which gas-lighting has not been introduced, it is probably much within the mark to estimate the works provided for the purpose at ten millions. One Company managed in London, but carrying on its operations chiefly in Ireland (The United General Gas Light Company), has a capital employed of 450,000*l.*; and another incorporation (The Imperial Continental Gas Company) has employed 250,000*l.* of English accumulations for providing light in various cities of Europe.

CHAPTER IV.

INVESTMENTS FOR COMMERCIAL PURPOSES.

Steam Engines in Birmingham — Shipping — Steam Vessels — Investments in Foreign Countries—Loans—Mines, &c., in British Colonies—Investments of Foreigners in our Public Funds withdrawn, and replaced by Savings of British Subjects—Live Stock—Investments for Improvement of Landed Estates.

THE additional amount of fixed capital employed from time to time for trading and manufacturing purposes it is not possible to estimate. It is probable that, through the greater economy and simplicity of manufacturing processes, the amount of the national accumulations thus applied has not been altogether proportioned to the increase of the manufactures; but, on the other hand, it must be considered that the necessary effect of that simplification is, for a time at least, to raise profits, and thereby to induce the employment of a larger amount of capital, until by competition the equilibrium shall be restored, when the rate of profit will be reduced to the average current rate within the kingdom.

The investment of capital in this direction may, however, have been exceedingly great, although it may have fallen short proportionally to the increase in the produce. It was stated in a paper drawn up under the inspection of a committee of gentlemen belonging to the town of Birmingham, and which was read at the statistical section of the British Association, during its meeting there in 1839, that the number of steam-engines erected and employed in the various manufactories of Birmingham between 1780 (the date of the first introduction) and 1815 was only 42; and that the number so employed in 1839 was 240, showing an increase since the termination of the war of 198 engines, the larger proportion (120 engines) having been added since 1830.

The great extension given to the use of machinery in other branches of manufactures, and especially in the cotton manufacture, during the present century, has already been described (Section ii. Chapter ii.). The steam power newly provided in 1835 in the cotton districts of Lancashire and its immediate vicinity, was there shown to be more than seven-

teen times as great as the whole steam power in use in Manchester at the beginning of the century. In the same year (1835) the returns made by the Inspectors of Factories stated that the number of power-looms employed in the cotton manufactories was 109,626, the whole of which had been made and put to use since 1801. The increase since 1835 has been exceedingly rapid, so that the number at this time (1850) falls but little short of 250,000.

The great increase shown to have been made to the foreign trade of the country, has called for the employment of a much larger amount of capital now than formerly in shipping. The number and tonnage of merchant vessels belonging to the British Empire were—

Years.	Ships.	Tons.
1803	20,893	2,167,863
1814	24,418	2,616,965
1841	30,052	3,512,480
1845	31,817	3,714,061
1849	31,757	3,876,433

The increase between 1803 and 1814 appears to have been 20¾ per cent., and between 1814 and 1849 the increased tonnage was 48 per cent. It is not difficult to account for this comparative falling off. The first period was one of war, while the second has been one of peace; and it is well known that a much larger provision of shipping is necessary for the prosecution of an equal amount of trade during war than suffices during peace, when the ships make the best of their way to the several ports of destination without having to wait for convoys. The greater economy of time thus attained has, of late years, been vastly augmented through the employment of steam-vessels. Besides these circumstances there was another cause which required the employment of a much larger tonnage during war than has since been needed. That part of the public service which regarded the conveyance of troops and stores was, in a great measure, carried on through the employment of private vessels hired by the Government for the purpose. Taking all these circumstances into calculation, it will be easily understood how the greatly augmented trade of the country is now prosecuted with so comparatively small an increased amount of shipping. As regards the capital embarked in the property of mercantile vessels, it is probably not much greater now than it was at any period between 1803 and 1814, owing to the smaller cost of the various materials required for the construction and equipment of vessels, and which countervails, to a great degree, not only the increased tonnage in existence, but also the increased cost of that part of our mercantile marine which is propelled by steam machin[illegible] number and tonnage of steam-vessels belonging to the [illegible] its dependencies at the end of 1849, was 1274 [illegible]rthen; but owing to the custom of not including [illegible]ontents of that part of these vessels which is

occupied by their machinery, the actual tonnage was much greater. The computed power of the engines employed was equal to that of nearly 100,000 horses. The accumulation of capital thus employed may be judged from this fact, that of the steam-vessels belonging to the British empire at the end of 1849, there were registered in—

Years.	Steam Vessels.	Years.	Steam Vessels.
1837	82	1844	73
1838	87	1845	73
1839	65	1846	88
1840	78	1847	115
1841	54	1848	128
1842	67	1849	80
1843	53		

The whole have been built since 1814.

A very large amount of capital belonging to individuals in this country, the result of their savings, has of late years sought profitable investment in other lands. It has been computed that the United States of America have absorbed in this manner more than twenty-five millions of English capital, which sum has been invested in various public undertakings, such as canals, railroads, and banks in that country. Large sums have also been, from time to time, invested in the public securities of that and other foreign governments—not always, indeed, with a profitable result.

When the security thus accepted proves good, there can be no reasonable objection made to this course. We may feel quite sure that capital would not thus be sent abroad but with the reasonable expectation of obtaining for its use a greater return than could be secured at home, and by such means the accumulation of property is accelerated. Besides the ultimate advantage, there results this present good from the transmission of our savings to other lands, that it sets in motion the springs of industry to provide the means for that transmission. It is not money, in the usual acceptation of the word, that thus finds its way abroad for investment, but products and manufactures, the results of British industry. We have no surplus bullion out of which such advances could be made, and even if we had, it would not be profitable to us thus to dispose of it. It may be in insulated cases, and under temporary influences, that bullion is exported for such a purpose at times when we cannot very well spare it, but even then the evil is soon remedied through the ordinary and well-understood operations, either direct or indirect, of commerce.

Large sums have, from time to time, been lent to various foreign states by English capitalists, whose money has been put to great hazard, and in some cases lost. On the other hand, many foreign loans have been contracted by our merchants which have proved highly profitable

through the progressive sale of the stock in foreign countries at higher than the contract prices. It is evidently impossible to form any correct estimate of the profit or loss which has resulted to the country from these various operations; the general impression is, that hitherto the losses have much exceeded the gains.

Amid the fever of speculation that arose in 1824–5, attention was drawn towards the mines of South America and Mexico, and several companies were formed with large capitals, to be employed in once more bringing those storehouses of the precious metals into productive operation. The capitals embarked, and it may be said sunk, in a few only of those undertakings, amounted to five millions sterling. By this means the supply of silver and gold towards the general circulation has been augmented, but at an expense to the adventurers so much greater than the returns, that the capitals originally subscribed may in most cases be considered lost. Investment has also been found for more than two millions and a half of money by joint-stock associations for the purchase and sale of lands in our North American and Australian colonies.

During the war which led to the downfall of Napoleon, a general feeling of insecurity pervaded the Continent, and large sums were invested by foreigners in the public funds of England with a view to safe custody. These investments were very convenient to us while such constant and great additions were being made to the national debt, and no doubt tended to make the terms of borrowing more favourable to our Government than they otherwise might have been. An additional inducement to the foreign capitalist to place his money thus in security was offered by the assurance that the income thence arising would not be subjected to deduction by taxation. It is a mistake to suppose that in the exemption from property-tax then extended to foreign holders of a portion of our public funds any favour was shewn to them. To subject the dividends to taxation would have been not only impolitic, it would have been unjust. The property-tax was collected from British subjects, holders of stock, at the times when the dividends were paid, because it afforded a convenient opportunity for collecting a tax imposed by law, not upon the public debt of the state, but upon the incomes of its subjects. In the Act which established the Income Tax in 1842, the same regard has not been paid to strict justice.

We learn from the claims made on the part of foreigners to this exemption from property-tax, that the amount of stock held by them in 1813 amounted to more than twenty millions.

With the return of peace came a temptation to employ the capital and increased means for its profitable investment abroad. The increased marketable value then given to the public funds would not [illegible]

holders to realize a considerable profit from the sale of their investments. For all these reasons a very large part of the money thus placed was withdrawn from England, and our capitalists found in this circumstance means for the investment of some of their accumulations. In 1815, the first year of peace and the last year of the then imposed property-tax, the amount of stock belonging to foreigners had already been reduced by the sum of three millions.

The property invested in live stock in this kingdom has evidently increased in a greater proportion than the population. It will be seen, by referring to the table of prices paid for beef and mutton at St. Thomas's Hospital, that they have fallen considerably since the beginning of the century. This fact alone proves that the proportionate supply is greater now than it was thirty or forty years ago, and that the improvements adopted in the means used for rearing and fattening animals for human food have been attended with much saving. The greater number of live stock has further tended to increase the abundance, and so to diminish the cost, of other kinds of agricultural produce by affording greater means of enriching the soil.

SECTION VII.—MORAL PROGRESS.

CHAPTER I.

INTRODUCTION.

Has our Moral kept pace with our Material Progress?—Diminution of Gross and Sensual Vice—General prevalence of Selfishness—Wretchedness of our Poor Population—Multiplication of Criminal Offenders—Reasons for expecting Amendment in this respect.

IT has been shown, in the preceding Sections of this volume, that since the beginning of the present century this kingdom has made the most important advances in population, in wealth, and in the various arts of life which are capable of ministering to man's material enjoyments. It is now proposed to consider whether equal advances have been made in regard to his moral condition and to the general tone of society. If our inquiries on this head do not admit of satisfactory answers—if, while wealth has been accumulated and luxuries have been multiplied, vice has been thereby engendered, and misery increased—the advantages of our progress may well be questioned. It were better (if it were possible) in such case, that we should return to the condition of poverty, make over our wealth-procuring inventions to other people, or, better still, consign them to annihilation, and, together with their poverty, resume the simplicity and comparative innocence of our forefathers.

An inquiry of this nature, honestly and fearlessly conducted, would, in all likelihood, lead us to conclusions of a mixed and partial character. If we should discover, on the one hand, that the general addiction to gross and sensual vices has been checked and lessened, we might, on the other hand, be forced to admit that we have lost some portion of the manly virtues by which our ancestors were characterised—that in our daily intercourse we have swerved from the road of honesty and truthfulness into the paths of expediency and conventionalism—that in our individual strivings after riches and position, the feeling of patriotism has been deadened, until our whole existence has become so tainted by selfishness that we suffer ourselves to view the interests of our country only as they may affect our individual ease or progress.

It would be foreign to the object of these pages to pursue the subject in this direction; but it would occasion deep regret if, in exhibiting the favourable side of the picture, and in giving utterance to hopes for the future, grounded upon the efforts for moral and intellectual improvements which now are happily in action around us, it could be held that there were implied any approval of national crime, or any feelings save those of shame and humiliation at our departure from that course of rectitude which was wont to make this favoured land more honoured for its justice than it was respected for its power.

The demoralizing tendency of riches has ever been a favourite theme for declamation with poets and moralists:—

> "Ill fares the land, to hastening ills a prey,
> Where wealth accumulates"————

is a sentiment which has been repeated until it has gained at least the nominal assent of many seriously-disposed but imperfectly-informed persons among us. They have not stopped to consider how far the evils which they deplore have their origin in or any connexion with increasing wealth, but have taken it for granted that, as the evils and the wealth have increased together, they must necessarily be considered as cause and effect.

It must be owned that our multiplied abodes of want, of wretchedness, and of crime—our town populations huddled together in ill-ventilated and undrained courts and cellars—our numerous workhouses filled to overflowing with the children of want—and our prisons (scarcely less numerous) overloaded with the votaries of crime, do indeed but too sadly and too strongly attest that all is not as it should be with us as regards this most important branch of human progress.

If we refer to our criminal returns, it will be found that in England and Wales, the number of persons committed for trial is now more than five times as great as it was at the beginning of the century; while in Ireland the proportionate increase has been even more appalling, there having been in 1849 twelvefold the number of committals that were made in 1805, the earliest year for which our records are available. There are not any accounts of so early a date by which we are able to make a similar comparison for Scotland; but comparing the number of committals in 1815 with those in 1849, we find that in those thirty-four years they have augmented nearly sevenfold.

We have here *primâ facie* evidence that the increase of crime has far outstripped the increase of our population, and without doubt of our wealth also, great as their increase has been; and it behoves us to inquire seriously, honestly, and fearlessly, how far those frightful appearances are founded in truth,—and, if they be so founded, whether the two conditions are necessarily connected, or whether their simultaneous occurrence be not rather attributable to ill-considered interference, or to

some deficiency or neglect on the part of those whose duty should have prompted them to the adoption of measures more effectual than have been used for the correction of the evil. It would indeed be a heart-sickening prospect if, in looking forward to the continued progress of our country in its economical relations, we must also contemplate the still greater multiplication of its criminals. The nature of the case does not indeed admit of our realizing such a future as is here supposed, for, ere it could be reached, the whole physical framework of society must be broken up. Neither should we be willing to admit—notwithstanding the experience of the last forty years—the *moral* possibility of such a result. The growing attention that is bestowed upon this subject in England, and not in England only but in every country where the like result had been experienced, is beginning to produce its legitimate fruit. Governments are at least awakened to the necessity of counteracting the evil tendencies that have made such fearful progress. It is seen, and is beginning to be practically acknowledged, that a great part of the moral evil under which societies are suffering is the offspring of ignorance, and that without insisting upon any very high degree of perfectibility in human nature, we may reasonably hope that the removal of that ignorance will do much towards restoring moral health to communities, and thus fit them for the rational enjoyment of blessings so increasingly offered for their acceptance. That this hope is not a mere vision of the philanthropist, but is founded upon the knowledge of what is daily passing around us, will be seen when we come to consider the intellectual condition of those who have been made to appear at the bar of justice, and find how small a proportion among them have received any beyond the first elements of instruction. When we are thus convinced of the powerful influence of instruction, even as hitherto communicated, in restraining from the open violation of laws, what may we not reasonably hope will be the power of that moral training which it is now felt must be employed to stamp its proper value upon knowledge? To suppose that blessings must necessarily be accompanied by countervailing curses, is to impute a capital deficiency to the intentions of Providence, and amounts to a practical denial of the power, wisdom, and goodness of the Almighty.

CHAPTER II.

CRIME.

Multiplication of Crimes against Property—Diminution of Crimes of Violence—Number of Offenders in England and Wales, 1805 to 1849, and Number of Executions—Increased Proportion of Convictions in the later Years—Severity of our Criminal Code and consequent Impunity of Offenders—Reforms in the Criminal Law—Historical Sketch of their Progress—Classification of Offences—Comparison of 1805 with 1841 in respect of Criminals and Population in each County—Comparison of Agricultural with Manufacturing Counties—Classification of Offenders with regard to Ages—Increase of Juvenile Offenders—Reformatory Prison at Parkhurst—Classification according to Intellectual Condition—Proportion of Sexes—Proportion of educated Offenders to Population—Analysis of Offences committed by educated Persons—False Conclusions drawn from French Criminal Returns concerning the Effects of Instruction. SCOTLAND: Superiority of its Criminal Jurisprudence—Offenders, 1830 to 1849—Classification according to Offences—Sex and Intellectual Condition—Proportion of Convictions—Ages of Offenders—Juvenile Offenders—Analysis of Crimes committed by educated Persons. IRELAND: Educated Offenders not distinguished as in England and Scotland—Comparative Morality of different Classes—Offenders in Ireland, 1805 to 1812—Proportion of Convictions—Offenders, 1822 to 1834, and Number executed in those Years—Committals and Convictions classified, 1835 to 1849, and Number executed—Extraordinary Fluctuations of Numbers in different Years—Proportionate Ages of Offenders—Incompleteness of Irish Criminal Returns—Numbers and Proportions of Offenders wholly ignorant, and who could read and write—Proportions of Juvenile Offenders, England, Scotland, and Ireland—Improvements in Prison Discipline.

THERE is a constant tendency in the human mind to magnify the importance of all that belongs to the present moment; and this tendency is peculiarly active as regards the evils by which we may be assailed or surrounded. We read of the vices and crimes of our forefathers, and especially such of them as have been notably diminished in our day, without any of those feelings of personal annoyance which make us so peculiarly sensitive while dealing with the faults of which we are the witnesses or the victims. Much research is necessary before we can place ourselves in the condition to form any correct judgment on such a subject, and much self-examination before we can be certain that our verdict is just.

If we consult the reports of Parliamentary Committees, or other publications upon these questions, which appeared in former years, we shall see that society then found as much cause for complaint and grief, through the prevalence of crime, as we find at the present day; and,

further, we cannot but be struck with the fact, that however prevalent offences may now be against property, we enjoy a far greater degree of protection from personal violence than our forefathers. In the early part of last century it was no uncommon thing for persons to be knocked down and robbed at noon-day in the public thoroughfares of London, while the roads in all directions were infested by robbers on foot and on horseback, who were ready for the commission of any number of murders, if met by resistance on the part of those whom they attacked. Even since the beginning of the present century, it happened to a physician, who, in the performance of his professional duty, was frequently obliged to cross Blackheath at all hours of the night, that for the preservation of his own life he at different times found himself under the necessity of shooting highwaymen by whom his carriage was attacked. The highway robberies and even murders committed upon what was then Hounslow Heath were of such frequent occurrence that they seemed almost matters of course, and he was considered a bold man who would venture alone to cross that spot after nightfall.

The author has been told by gentlemen now living, who were accustomed to repair after business hours to their residences in the environs of London, and particularly on the south side of the Thames, at Dulwich and Norwood, that it was the uniform practice with them to appoint some place of rendezvous from which they proceeded in a body for mutual protection.

These things have passed away and are become only matters of tradition. One cause of their diminution has been the greater use of paper money, and consequently the smaller amount of coin which travellers carry with them, by which means the risk of after detection is greatly increased; but the chief means of suppression are found in our improved system of police, which, while it has succeeded to a great extent in putting down these graver ontrages, has brought to light numerous minor delinquencies, and placed in our criminal records offences which previously passed unpunished, or were summarily dealt with by the populace. We might search those records of former periods in vain for the evidence of many offences which now swell the calendar—not that the offences were unknown, but that the punishment of them was not reserved for the magistrate. The pickpocket, for example, who should be detected in the commission of his offence, was dragged by the mob to the nearest pump, half drowned, and then allowed to depart.

The following table shows the number of males and females committed for trial in England and Wales in each year from 1805 to 1849; the number in each of those years that were convicted, distinguishing those sentenced to death, those actually executed, and among the latter number, those executed for the crime of murder:—

Years.	Committed for Trial.			Number Convicted.	Sentenced to Death.	Executed.	Executed for Murder.
	Males.	Females.	Total.				
1805	3,267	1,338	4,605	2,783	350	68	10
1806	3,120	1,226	4,346	2,515	325	57	5
1807	3,159	1,287	4,446	2,567	343	63	16
1808	3,332	1,403	4,735	2,723	338	39	8
1809	3,776	1,554	5,330	3,238	392	60	9
1810	3,733	1,413	5,146	3,158	476	67	9
1811	3,859	1,478	5,337	3,163	404	45	7
1812	4,891	1,685	6,576	3,913	532	82	16
1813	5,433	1,731	7,164	4,422	713	120	25
1814	4,826	1,564	6,390	4,025	558	70	23
1815	6,036	1,782	7,818	4,883	553	57	15
1816	7,347	1,744	9,091	5,797	890	95	21
1817	11,758	2,174	13,932	9,056	1,302	115	25
1818	11,335	2,232	13,567	8,958	1,254	97	13
1819	12,075	2,179	14,254	9,510	1,314	108	15
1820	11,595	2,115	13,710	9,318	1,236	107	10
1821	11,173	1,942	13,115	8,788	1,134	114	22
1822	10,369	1,872	12,241	8,209	1,016	97	18
1823	10,342	1,921	12,263	8,204	968	54	11
1824	11,475	2,223	13,698	9,425	1,066	49	15
1825	11,889	2,548	14,437	9,964	1,036	50	10
1826	13,472	2,692	16,164	11,107	1,203	57	10
1827	15,154	2,770	17,924	12,567	1,529	73	11
1828	13,832	2,732	16,564	11,723	1,165	58	17
1829	15,556	3,119	18,675	13,261	1,385	74	13
1830	15,135	2,972	18,107	12,805	1,397	46	14
1831	16,600	3,047	19,647	13,830	1,601	52	12
1832	17,486	3,343	20,829	14,947	1,449	54	15
1833	16,804	3,268	20,072	14,446	931	33	6
1834	18,880	3,571	22,451	15,995	480	34	12
1835	17,275	3,456	20,731	14,729	523	34	21
1836	17,248	3,736	20,984	14,771	434	17	8
1837	19,407	4,205	23,612	17,090	438	8	8
1838	18,905	4,189	23,094	16,785	116	6	5
1839	19,831	4,612	24,443	17,832	56	11	10
1840	21,975	5,212	27,187	19,927	77	9	9
1841	22,560	5,200	27,760	20,280	80	10	10
1842	25,740	5,569	31,309	22,733	57	9	9
1843	24,251	5,340	29,591	21,032	97	13	13
1844	21,549	4,993	26,542	18,919	57	16	16
1845	19,341	4,962	24,303	17,402	49	12	12
1846	19,850	5,257	25,107	18,144	56	6	6
1847	22,903	5,930	28,833	21,542	51	8	8*
1848	24,586	5,763	30,349	22,900	60	12	12†
1849	22,415	5,401	27,816	21,001	66	15	15

* 1 suicide. † 1 respited.

The first thing that must strike every one on consulting this table, is—after the appalling increase in the number of convicts—the different proportion which females bear now to males, compared with the proportion which they bore in the earlier years of the statement. In 1805, the proportion of females to the whole committals was 29 per cent.; whereas in 1849 the proportion was barely 20 per cent. The number of convictions in proportion to committals is now much greater than formerly. In the five years at the beginning of the above series, the convictions amounted to 58·8 per cent.; while in the five years ending with 1849, the proportion was 74·03 per cent. This change is probably attributable to a combination of various causes, such as the allowance of

their expenses to prosecutors and witnesses, which has secured their attendance at trials; the simplification of the laws; and the experience in criminal matters of a large body of trained police officers. This effect has doubtless, too, been in great part a consequence of successive mitigations of the severity by which our criminal code was formerly characterised, and which indisposed juries to convict in cases where the penalty was incommensurate with the offence. It was a cruel position in which every citizen was liable to be placed, where he must either do violence to his own conscience by acquitting the guilty, or feel himself to be the abettor of harsh and unjust legislation. We have the means in these figures of estimating the first-named of those evils; but who can number to us the cases of anguish where men of feeling and of conscience gave over their fellow-creatures to the mercies of the hangman, in expiation of some comparatively petty offences committed possibly through distress? It might have proved more merciful in the end had jurymen withstood in every case the yearnings of humanity, and thrown upon the Government the reproach of our unjust and sanguinary laws, since these might thus have been sooner rendered impossible of execution.*

This was only one part of the evil consequences of our former severity. The same feeling which induced jurymen to acquit, indisposed those against whom crimes had been committed to accuse; and we may reasonably imagine that the number of persons who thus escaped prosecution was much greater than that of the class who were wrongfully acquitted, because the man who had been robbed or injured did no violence to his conscience in withholding the charge; he had all the motives here explained leading him to a merciful course, and none of the opposing restraint caused by the juryman's oath. In this manner malefactors escaped, and an additional incentive to criminal courses was provided.

The amount of guilt and of wretchedness which might fairly be imputed to the carelessness or ignorance of the British Parliament on all matters relating to the repression of crime, would, if any estimate could be formed on the subject, prove an emphatic warning to legislators. The course pursued for the purpose by Parliament was for a long period only a series of wretched expedients. When, by the greater frequency of its occurrence, or by some notorious instance, any particular offence forced itself upon public attention, it was not the rule, as reason would have dictated, to examine and remove the causes of the increase, but to multiply the terrors of the law to a degree out of all proportion with the guilt of the offenders. By this severity, or possibly through

* Juries frequently forgot their oath, "to find a true verdict according to the evidence" —in fact perjured themselves – by reducing the amount sworn to as the value of stolen property, in order to avoid the capital conviction.

circumstances distinct from legislation, the tendency to commit that particular crime may have been lessened, until the feeling of vengeance under which the law was made would pass away; its execution would then be rendered impossible, and the law would become as great a nuisance as the offence against which it was enacted through the impunity consequent upon its disproportionate severity.

This is no longer matter for speculation or conjecture. Our criminal code has now been for some years relieved from a great part of the reproach so justly charged against it, and we can refer to parliamentary returns for confirmation of the views here expressed.

We learn from the interesting explanations prefixed to the Criminal Returns for England and Wales, by Mr. Redgrave of the Home Office, that although between 1818 and 1824, adopting the recommendation of a Committee of the House of Commons, capital punishments were abolished for twenty-one offences, but little effect was shown in the numbers of persons sentenced to death and executed, "the remission not having reached any of the larger classes of offences, and some of the offences having indeed become obsolete. In 1832 capital punishment was abolished for cattle-stealing, horse-stealing, sheep-stealing, larceny to the value of 5*l.* in a dwelling-house, coining, and forgery (except of wills and powers of attorney to transfer stock)." Capital punishment was removed in 1833 from house-breaking—in 1834 from returning from transportation—in 1835 from sacrilege, and letter-stealing by servants of the Post-office—and in the first year of the present reign (1837) capital punishments were abolished in respect of all offences, with the exception of—

Murder and attempts to murder when accompanied with injuries dangerous to life;
Rape, and carnally abusing girls under ten years of age;
Unnatural offences;
Burglary, when attended with violence to persons;
Robbery, when attended with cutting and wounding;
Arson, of dwelling-houses or ships; when the lives of persons therein are endangered;
Piracy when murder is committed;
Showing false signals to cause shipwreck;
Setting fire to Her Majesty's ships of war;
Riot, and feloniously destroying buildings;
Embezzlement by servants of the Bank of England;
High treason.

The last six named offences are of very rare occurrence.

A further relaxation of the law took effect in 1841, when capital punishment was abolished for the crimes of rape, felonious riots, and embezzlement by servants of the Bank of England.

Mr. Redgrave gives in the following statement a strong proof of one of the evils already noticed, as attending upon the undue severity of our criminal code in former years: —

"The Acts of the 1 Victoria have had a very beneficial effect upon the result of prosecutions, juries being in all cases less unwilling to convict when they know that capital punishment will not follow. By these Acts capital punishments were abolished in the crimes enumerated below, for which, at that time, executions were not unusual; and the greater proportion of convictions in those crimes which has resulted from the alteration in the law is very remarkable. In the following calculation, a comparison is made of the centesimal proportion of convictions to accusations, in respect to those offences, in the three years preceding the abolition of the capital punishment, and in the three years ending with 1841:"—

	Average of 1835-6-7	1839	1840	1841
Attempts to murder	40·75	50·71	56·15	63·22
Sacrilege	73·68	77·77	68·75	66·66
Burglary	69·69	73·56	78·98	79·85
Robbery	56·08	62·98	64·71	63·80
Arson	16·56	29·73	27·00	45·45

It is still more satisfactory to be able to state, on the same excellent authority, "that in the majority of the offences for which capital punishments were repealed there has been a decrease, and that in the aggregate this decrease amounted in 1841 to 4½ per cent., while commitments generally had increased."

The effect of the successive changes made of late years in our criminal code is forcibly stated by Mr. Redgrave as follows:—

"The magnitude of the recent changes in the criminal law will be strongly exemplified when it is stated that, had the offences tried in 1841 been tried under the laws of 1831, the eighty capital sentences passed would have been increased to 2172."

The increasing proportion of convictions which has already been noticed as a consequence of this relaxation of the code has been steadily progressive throughout. Examining the returns in this particular at short intervals, we find the following result:—

Years.			Years.		
1805	Convictions per cent.	60·43	1830	Convictions per cent.	70·72
1810	„	61·35	1835	„	71·04
1815	„	62·46	1841	„	73·05
1820	„	67·23	1845	„	71·60
1825	„	69·01	1849	„	75·49

The following historical sketch of the efforts made in Parliament for mitigating the severity of our criminal code has been drawn up and kindly communicated by the valuable public officer whose name has already been mentioned—Mr. Redgrave, keeper of the Criminal Re-

gister in the Home Office. We may learn from this narrative how rapid is the march of public opinion in the right direction, when once the shackles of prejudice have been cast aside, and the evidence of facts has been allowed to produce itself in confirmation of the views of enlightened reformers. We here see, among the opponents of all change in a system of criminal legislation, now looked back upon with horror or disgust by every one, the highest authorities of the day—the then Lord Chancellor and Lord Chief Justice of England. If anything could justify successive Parliaments in resisting the appeals for mercy and for enlightened justice made by Romilly and Mackintosh—names to be ever honoured for their devotion to the cause of humanity—it would be the resistance offered to those appeals by Lords Eldon and Ellenborough, armed as they were with all the weight of a lengthened experience. Yet has our own subsequent experience in the system they opposed proved that these—the "practical men," *par excellence*—were decidedly wrong; while the "theorists," whose schemes they so unhesitatingly denounced, were still more decidedly right, since every one of their predictions of the good to follow from the adoption of the measures they advocated has been fulfilled or rather surpassed.

"In 1750, a Committee of the House of Commons appointed to inquire into the laws relating to felonies 'reported that it was reasonable to exchange the punishment of death for some other reasonable punishment;' and a Bill founded on this resolution passed the House of Commons, but was rejected in the House of Lords.

"The subject then slept for more than half a century, until in 1808 Sir Samuel Romilly brought forward his first motion for the Reform of the Criminal Laws; and a Bill which he introduced for abolishing the capital punishment for *stealing privately from the person to the value of* 5*s.* (picking pockets) passed into a law during the same session.

"In 1810 Sir S. Romilly obtained leave to bring in three Bills for the Abolition of Capital Punishments:—

"1st. For stealing to the value of 5*s.* in shops, warehouses, coach-houses, &c.

"2. For stealing to the value of 40*s.* in a dwelling-house.

"3rd. For stealing to the value of 40*s.* on navigable rivers, &c.

"The first Bill passed the House of Commons, but made no further progress; the second was opposed by the Government, and lost by a majority of two in a thin house; the third Bill was dropped for the session.

"In the following year Sir S. Romilly again introduced the above Bills, together with a Bill abolishing capital punishment for stealing from bleaching-grounds, and was enabled, in opposition to the ministry of the day, to carry his four Bills through the House of Commons. The

Bills were introduced into the House of Lords by Lord Holland, supported by Lord Lansdowne, and, with the exception of the Bill relating to bleaching-grounds (which was passed into a law), were strongly opposed by the Lord Chancellor, and by Lords Liverpool and Ellenborough, and were lost on a division. Lord Ellenborough, on this occasion, said, 'These Bills went to alter laws which a century had proved necessary, and which were now to be overturned by speculation and modern philosophy;' and again, 'He trusted that laws, which a century had proved to be beneficial, would not be changed for the illusory opinions of speculatists.'—*Hansard*, vol. xx.

"In 1812 Sir S. Romilly introduced a Bill which passed into a law, repealing an Act of Elizabeth which constituted it a capital offence in soldiers and sailors found begging in the streets.

"In 1813, on the assembling of the new Parliament, Sir S. Romilly again introduced his Bill abolishing capital punishment for shop-lifting. He had selected this Bill as having, in former discussions, been considered less objectionable than the others. Mr. Secretary Ryder and the Solicitor-General expressed their disapproval of the Bill on its introduction, and ministers opposed it on the third reading as introducing an innovating spirit into the criminal legislation. It was, however, carried in the face of this opposition by a majority of 38 in a house of 106 members, but thrown out in the House of Lords.

"In 1816 Sir S. Romilly carried this Bill once more through the House of Commons, but its further progress was again stopped in the House of Lords. In introducing his Bill, Sir S. Romilly brought forward the fact, that in the year 1785, no less than ninety-seven persons were executed for the offence of shop-lifting in London alone.

"In 1818 Sir S. Romilly again carried this Bill—the identical Bill which had already twice passed the House of Commons in that Parliament, and twice in its predecessor, the only opposition offered being an amendment proposed by the Attorney-General, on the third reading, to the declaration in the preamble, 'that extreme severity was calculated to produce impunity for crimes.' In defeating this amendment, and affirming the principle for which he contended, Sir S. Romilly's exertions for the amelioration of the criminal laws of his country terminated. He died at the close of the year; and though he had not been enabled, during a struggle of ten years with the ministry of that day, which opposed all his propositions, to carry many of the measures he so zealously advocated, he had impressed the House of Commons with their justice, and at least put a stop to the sanguinary enactments which were, up to that time, constantly being added to the Statute Book, at the same time that he aroused the attention of the public by his eloquent appeals to the state of the laws.

"In 1819 the criminal laws and their administration were the subject of frequent discussions.

"The number of convictions and executions, particularly for the forging and uttering of bank notes, was urged as a ground for inquiry, and petitions from most of the large towns and many influential bodies were presented to Parliament praying that serious consideration might be given to the subject. Lord Holland presented a petition to this effect from the Corporation of London in the Upper House, and earnestly supported it; and the sheriffs presented a similar petition at the bar of the House of Commons. Mr. Wilberforce presented a petition from the Society of Friends, stating that at their annual meeting the subject had arrested their attention, and expressing the feelings of deep commiseration and regret.

"The public feeling was made sufficiently apparent in other ways. Juries seemed determined to resist by their verdicts the severe enactments of the laws, and injured parties were deterred from appearing as prosecutors. Sir James Mackintosh now appeared as the active advocate of the reforms which had been so much advanced by the exertions of his friend, and moved (in March, 1819) the appointment of a select committee 'to consider so much of the criminal law as related to capital punishments, and to report their observations and opinion to the House.'* The motion was opposed by Lord Castlereagh, supported by his party —but, after a lengthened debate, was carried by a majority of 19 in a house of 275 members. This defeat of the minister was welcomed with 'great cheering.' The committee was appointed, and made their report at the end of the session. In the next year, Sir James moved the reappointment of the committee, and brought in six Bills for the Amendment of the Criminal Laws, founded on their report presented in the previous session. These Bills proposed to abolish capital punishments—

"1st. For stealing to the value of 40*s.* in dwelling-houses.

"2nd. For stealing to the value of 5*s.* privately in a shop.

"3rd. For stealing privately on a river to the value of 40*s.*

"4th. For several offences of the nature of misdemeanors, many of them obsolete.

"5th. Repealed parts of Acts creating capital offences, among which were—abduction of women of property—maliciously wounding cattle—taking a reward for the recovery of stolen goods—destroying trees—breaking down the banks of rivers; and several offences connected with the marriage and bankrupt laws.

"6th. Consolidated and amended the laws relating to *forgery*, and

* Sir J. Mackintosh stated that a similar resolution was passed in 1770, when authority was delegated to a commission for the same purpose.

repealed the capital punishment for all *first* offences of forging and uttering—except of Bank of England notes.

"The Bills relating to stealing in a dwelling-house, stealing on navigable rivers, and forging, were opposed by the Government of the day, and abandoned by Sir James in the face of their opposition. The other three Bills were suffered to pass into laws—the Lords having altered the Shop-lifting Bill, leaving it capital to steal in shops to the value of 15*l.*

"In 1821 Sir James Mackintosh succeeded in carrying the second and third reading of his Forgery Bill in opposition to the strenuous exertions of the ministry. On the question that the Bill do pass, some of its supporters having left the house, Lord Londonderry tried another division—and by this parliamentary stratagem, which was warmly exclaimed against, succeeded in defeating the Bill—the numbers being 121 to 115.

"In 1822, in consequence of ill health, Sir James Mackintosh confined his exertions to the obtaining a pledge from the House to consider means, in the following session, for abating the rigour of the criminal law. This resolution, though strongly opposed by the Government, he carried by 117 to 101.

"In 1823, in pursuance of the resolution which, in spite of the Government, he had extorted from the House, Sir J. Mackintosh proposed, in a series of resolutions, that it was expedient to abolish the punishment of death in cases of larceny from shops, from dwelling-houses, and on navigable rivers—for horse, sheep, and cattle stealing—for forgery—returning from transportation, and other offences made capital by partiulcar statutes. These resolutions were oppsoed by Sir Robert Peel, then Secretary of State for the Home Department, who moved the previous question, and promised that the subject should be taken up by the Government. Sir Robert Peel's motion was carried, and Sir J. Mackintosh stated that 'he should not take upon himself to introduce any other measures for amending the criminal laws, because he must foreknow their fate.' In conformity with his promise, Sir Robert Peel afterwards brought in three Bills for Abolishing Capital Punishments, which were passed, an ineffectual attempt being made by Sir J. Mackintosh to extend their provisions. These Bills abolished capital punishments in fifteen distinct offences; but the offences were either obsolete, or of so unfrequent occurrence, that they did not tend much to ameliorate the severity of the criminal code. This will be at once obvious from the fact, that in the two years preceding the passing of these Bills, the Criminal Records show that only four convictions took place under their enactments, and that step by step with them Sir Robert Peel carried a Bill to enable Judges to record instead of passing the sentence of death, in order to avoid the farce of solemnly passing a sentence which no one who heard it imagined could be executed.

"In the three years preceding the passing of these Bills, the capital convictions were 3070; the executions, 153.

"In the three following years, the capital convictions were 4076; the executions, 223.

"The executions from 1820 to 1829 inclusive were 729.

"The executions in ten years, from 1832 to 1841 inclusive, were 216.

"In the last five years, the executions have been—

Years.	Executions.
1837	8
1838	6
1839	11
1840	9
1841	10
	44

"In 1826, 1827, and 1828, Sir Robert Peel carried several very important Bills for the consolidation and amendment of the criminal laws, but these Bills did not abolish capital punishments. Sir R. Peel, indeed, made it a matter of boast that he did not constitute any new capital felonies, and pointed out an instance in which he had abated the capital punishment by increasing the sum constituting it a capital offence to steal in a dwelling-house, from 40*s.* to 5*l.*, and by widening the technical description of a dwelling.

"In 1830 Sir Robert Peel brought in his Forgery Bill, and petitions were poured into the house from all quarters against the re-enactment of the severe penalties for this offence. Sir James Mackintosh again took up the subject, and moved that the capital punishment be struck out from the Bill. He was unsuccessful; but in the last stage of the measure Mr. Spring Rice was enabled to defeat the ministry by a majority of 151 to 138, and to remove the sentence of death from the Bill. It was, however, restored by the House of Lords, and the Bill, as altered, was suffered to pass the House of Commons at the end of the session.*

"In 1832 two most important Bills for abolishing capital punishments were passed. Mr. Ewart, assisted by the Government, was able to carry a Bill abolishing the punishment of death in cases of horse, sheep, and

* Executions for forgery were not of uncommon occurrence up to this time—1830; for the three preceding years no less than fifteen persons were executed for this offence out of 123 capitally convicted. The manner in which the better feelings of our nature are liable to be blunted or perverted by habit is well exemplified by the following authentic anecdote. It is related by a very high judicial authority, that he once heard a judge at Stafford sentence a prisoner convicted of uttering a forged note of the Bank of England for one pound, when, after having pointed out to him the enormity of the offence, and exhorted him to prepare for another world, the dignitary thus concluded: "And I trust that through the merits and mediation of our blessed Redeemer, you may there experience that mercy which a due regard to the credit of the paper currency of the country forbids you to hope for here"

cattle stealing, and larceny in a dwelling-house.* He was opposed by Sir R. Peel, and an amendment was made in the Lords subjecting these offences to the fixed penalty of transportation for life—at the same time, ministers brought in a Bill for abolishing capital punishment in cases of forgery. This Bill was introduced into the Commons by the Attorney-General, and into the House of Lords by the Lord Chancellor. It passed into a law, but an amendment was made in the House of Lords under the protest of the Lord Chancellor, excepting the forgery of wills and powers of attorney to transfer stock, which offences were left capital.

"In 1833 Mr. Lennard carried his Bill for abolishing capital punishment for housebreaking, executions for which offence were continued down to 1830.

"In 1834 Mr. Ewart carried a Bill for abolishing capital punishment for returning from transportation; and in the following year for sacrilege and letter-stealing.

"This was the state of the criminal law when Lord John Russell brought in his Bills for its mitigation, founded on the report of a committee which the Government had appointed. The little progress which Sir S. Romilly and Sir J. Mackintosh had made in opposition to the Governments of their day, will be seen by the foregoing sketch—as well as the extensive and salutary changes which followed. Lord J. Russell's Bills effected an extensive abolition of the sentence of death and a mitigation of the secondary punishments. He was enabled to abolish capital punishments in all cases but—

"Murder and attempts to murder, where dangerous bodily injuries are effected;

"Burglary and robbery, when attended with violence or wounds;

"Arson of dwelling-houses, where life is endangered—and six other offences of very rare occurrence.

"The number of capital convictions in 1829 was 1385; and in 1834, three years after the extensive abolition of capital punishments, the number was reduced to 480.

"Only four years have elapsed since the passing of these Acts, as to which we as yet know the result, and the Criminal Tables show their very important operation upon the criminal procedure. These tables show the *capital* convictions under the existing laws to have been reduced, if we deduct the number of offences committed in 1838, before

* Executions for these offences were common up to 1830. In the three preceding years there were executed for—

Horse stealing	22
Sheep stealing	9
Larceny in dwelling-houses	6

In the following two years which intervened before the abolition of the capital punishment, two persons only were executed for these offences.

the passing of the Act of that year, to a number not exceeding that of the executions in a like period up to the end of 1829. The effect on the secondary punishments has been very great. The proportion sentenced to transportation for life was reduced from 1 in 20 to 1 in 86, and the effect of the change in the chief punishments has been visible down to the bottom of the scale."

Among the injurious results of the sanguinary code which was so long allowed to disgrace our statute-book, may be mentioned the impressions made upon the minds of transgressors. It might have been supposed that at least one salutary effect would have attended upon severity,—that the terror which it was calculated to excite would have had a wholesome influence in deterring from crime: but it is well known that the very reverse of this effect was produced. Mrs. Elizabeth Fry, whose name will go down to posterity with that of Howard, and who had well qualified herself for being heard upon this question, was examined before the Committee on the Police of the Metropolis in 1818, and upon this point gave the following testimony:—

"As an illustration of the effects produced among the prisoners themselves by capital punishments, I wish to read a note which was taken in the prison of Newgate soon after the execution of a woman named Elizabeth Fricker, who was executed for admitting a man to rob her mistress. 'I visited Newgate two days after the execution of Elizabeth Fricker, and instead of finding, as I expected, the whole of the criminals awfully affected by what had passed, I found a spirit of pity and lamentation over the sufferers, with such an impression that the punishment exceeded the crime, that it excited a feeling of great displeasure and even bitterness, not only towards our laws but to those who put them into execution; and so far from softening the heart, or leading it from evil, it appeared to harden them, and make them endeavour to justify their own criminal conduct as well as that of those who suffered, and even to fortify themselves through unbelief of the truths of religion, or to justify themselves and those who suffered, by feeling that they were not what they considered justly done by.'"

Up to 1834 there was not any classification of offences made in our criminal returns, the whole being arranged alphabetically. But on and after that year crimes have been ranged under six principal heads, viz.:—

1. Offences against the person;
2. Offences against property, committed with violence;
3. Offences against property, committed without violence;
4. Malicious offences against property;
5. Forgery and offences against the currency;
6. Other offences, not included in the above classes.

Following this classification, we find that the offences charged in England and Wales in each year from 1834 to 1849 under the various heads have been,—

Years.	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Total.
1834	2,455	1,459	16,608	162	431	1,336	22,451
1835	2,016	1,354	15,478	156	368	1,359	20,731
1836	1,956	1,310	16,167	168	359	1,024	20,984
1837	1,719	1,400	18,884	114	456	1,039	23,612
1838	1,859	1,538	18,278	89	503	827	23,094
1839	2,009	1,432	19,243	105	436	1,218	24,443
1840	1,881	1,934	21,484	145	541	1,202	27,187
1841	2,140	1,873	22,017	94	437	1,199	27,760
1842	2,127	2,178	23,995	201	634	2,174	31,309
1843	2,431	2,530	22,298	279	668	1,385	29,591
1844	2,306	1,759	20,425	347	548	1,157	26,542
1845	1,966	1,471	19,506	149	438	773	24,303
1846	2,249	1,507	20,035	209	406	701	25,107
1847	2,023	1,732	23,571	186	525	796	28,833
1848	2,234	2,172	23,910	191	684	1,158	30,349
1849	1,846	2,076	22,053	293	676	872	27,816

The increase is here seen to apply chiefly to offences against property committed without violence, and which bore to the whole number of committals in each of the years the following proportions:—

Years.	Per Cent.	Years.	Per Cent.	Years.	Per Cent.
1834	73·97	1840	79·02	1845	80·26
1835	74·66	1841	79·31	1846	79·79
1836	77·04	1842	76·64	1847	81·75
1837	79·97	1843	75·35	1848	78·78
1838	79·14	1844	76·95	1849	79·28
1839	78·72				

Although the population of England and Wales has probably increased in the 15 years between 1834 and 1849 by more than 20 per cent., the number of offenders in the remaining five classes has not increased, and, indeed, was smaller in the concluding than in the first year of the series. It is clear, therefore, that the relaxations of our criminal laws are in no respect chargeable with the increasing number of delinquencies which have occurred in a class of crimes in regard to which little or nothing has been done in that direction. The number of executions that have taken place in England and Wales between 1805 and 1849 is seen by the foregoing table to have been 2281, or, on an average, 50 yearly, of which number 575, or 12 per annum, had been guilty of murder; so that, according to the convictions under which the legislature has of late years been brought to act, the fearful number of 1706 lives have in that period been unnecessarily and therefore wrongfully taken in England and Wales alone.

In the following table the number of committals in 1841 is contrasted with those in 1805 for each county in England, and calculations are added whereby it may be seen how greatly the increase of committals [illegible]tripped the increase of population. It will be found, that in

the period of thirty-six years the rate of increase in criminality, thus measured, had run from 250 per cent. in Rutlandshire to 1720 per cent. in Monmouthshire. In the former county, the increase of population between 1801 and 1841 was the smallest experienced in England, excepting Sussex and Herefordshire; while in Monmouthshire the increase of population has been the largest, with the exception of Lancashire.

Numerical Order of Counties in respect to Agricultural Employment.	Counties.	Committals in		Increase per Cent. of	
		1805	1841	Committals between 1805 and 1841.	Population between 1801 and 1841.
1	Bedford	20	191	855	70
2	Huntingdon	15	62	313	50
3	Rutland	4	14	250	30
4	Hereford	31	245	690	28
5	Lincoln	58	349	502	73
6	Cambridge	40	240	500	84
7	Bucks	33	287	769	45
8	Essex	144	647	349	56
9	Suffolk	109	482	342	49
10	Wilts	75	506	575	40
11	Oxford	38	323	750	47
12	Northampton	42	342	714	51
13	Herts	43	319	642	61
14	Berks	62	306	393	46
15	Norfolk	163	666	509	50
16	Dorset	38	284	647	51
17	Sussex	105	539	413	25
18	Westmoreland	6	33	450	35
19	Salop	79	416	426	42
20	Somerset	106	991	835	59
21	Hants	147	677	360	57
22	Devon	96	687	615	55
23	Kent	210	962	358	78
24	Worcester	51	566	1,009	67
25	Cornwall	45	295	555	80
26	Cumberland	18	151	739	53
27	Leicester	47	466	891	65
28	Nottingham	74	329	344	75
29	Monmouth	20	364	1,720	128
30	Derby	39	277	610	67
31	Gloucester	141	1,236	776	71
32	Chester	80	943	1,078	106
33	York	245	1,895	673	85
34	Warwick	160	1,046	553	93
35	Stafford	91	1,059	1,063	113
36	Northumberland	38	226	494	59
37	Durham	27	215	696	102
38	Surrey	199	923	363	106
39	Lancaster	371	3,987	974	147
40	Middlesex	1,217	3,586	194	94
		4,605	27,132	482	79

The counties are arranged in the order of their rank as regards agricultural employment in 1831; and it will be found that, in the twenty counties where the largest proportion of the inhabitants belonged to the agricultural class, the increase of crime has been as great within a very minute fraction as it has been in the remaining

twenty counties,—the increase of committals having been, in the more agricultural counties, 498 per cent., and in the more manufacturing counties 499 per cent.; while the increase of population between 1801 and 1841 in the more agricultural counties has been 55 per cent., and in the remaining counties 92 per cent. We find nothing in this examination to support the assertion, so often hazarded, that vice and crime are fostered by bringing men together in large masses, while innocence is preserved by rural pursuits. For each million of inhabitants, there were charged with offences—

	1805	1841	Difference.
In the 20 more agricultural counties . .	446	1,723	1,277
In the 20 less agricultural counties	590	1,842	1,252

The refutation of the popular belief thus established will appear more decided if we consider that, as already shown, the great increase of crime generally has been in that class of offences, the temptations to commit which are out of all proportion greatest in the more populous districts.

If the comparison had been made between 1805 and 1840, it would have been found that the proportionate number of accusations to population in the two classes of counties were still nearer than in 1841.

The result would then have been as follows:—For each million of inhabitants there were charged with offences—

	1805	1840	Difference.
In the 20 more agricultural counties . .	446	1,753	1,307
In the 20 less agricultural counties . . .	590	1,836	1,246

The great number of committals in the manufacturing counties in 1841 was probably the effect of commercial distress, which most painfully abridged the demand for labour, and of the high prices of provisions to which that distress has been attributed.

During the eleven years from 1835 to 1845, for which alone the returns afford means of comparison, there has been a most remarkable uniformity in the proportionate number of persons at different ages committed for trial.

The centesimal proportions at various periods of life in each of those years were:—

AGES.	1835	1836	1837	1838	1839	1840	1841
Aged 12 years and under .	1·67	1·84	1·52	1·58	1·74	1·79	1·79
Above 12, not exceeding 16	9·70	9·71	9·72	9·92	10·08	9·80	9·78
„ 16 „ 21	29·65	29·03	29·23	29·13	28·07	28·10	27·28
„ 21 „ 30	31·92	31·42	31·74	31·24	31·12	30·99	32·10
„ 30 „ 40	14·01	14·43	14·56	14·75	14·94	15·32	15·35
„ 40 „ 50	6·60	6·76	6·65	7·02	6·97	7·21	7·18
„ 50 „ 60	3·24	3·33	3·24	3·00	3·23	3·12	2·99
„ 60 years	1·30	1·40	1·55	1·58	1·55	1·57	1·51
Ages unknown	1·91	2·08	1·79	1·78	2·30	2·10	2·02
	100·	100·	100·	100·	100·	100·	100·

In and since 1842 the ages have been ascertained at different periods of life to assimilate them to the quinquennial periods adopted in the population returns.

AGES.	1842	1843	1844	1845	1846	1847	1848	Centesimal Proportions of Population, 1841
Aged under 15 years .	5·3	5·7	6·0	6·4	6·5	6·1	3·6	36·0
„ 15, and under 20	22·0	22·7	23·3	24·1	24·5	24·2	23·8	9·9
„ 20 „ 25	24·7	24·3	24·1	24·2	23·3	23·0	25·2	9·7
„ 25 „ 30	15·3	14·9	14·9	14·3	14·6	14·7	15·4	8·0
„ 30 „ 40	16·8	16·4	15·3	15·6	15·8	16·7	16·8	12·9
„ 40 „ 50	8·3	8·1	8·3	8·2	8·4	8·5	8·6	9·6
„ 50 „ 60	3·8	3·5	3·9	3·6	3·4	3·6	3·4	6·4
„ 60, and above .	1·8	1·9	2·0	1·7	1·8	1·8	1·7	7·2
Ages unknown . . .	2·0	2·5	2·2	1·9	1·7	1·4	1·5	0·3
	100·	100·	100·	100·	100·	100·	100·	100·

The most disquieting feature of these details is the large amount of criminality found in persons of tender years, and who may be considered victims of the evil influences to which they have been exposed. The actual numbers of children under sixteen years old who were committed for trial in the years 1835 to 1841, distinguishing boys from girls, were,—

Years.	Males.	Females.	Total.
1835	2,002	354	2,356
1836	2,057	366	2,423
1837	2,265	389	2,654
1838	2,250	407	2,657
1839	2,425	463	2,888
1840	2,586	557	3,143
1841	2,656	556	3,212

The constant and rapid additions thus apparent in the ranks of juvenile offenders was calculated to awaken the deepest and most anxious interest. It at length compelled the Government to the adoption of active measures for the repression of the evil—an evil which never should, nay, never could, have arisen but for the neglect of the legislature to furnish means for imparting to all that degree of moral training which it is the duty of the State to provide with regard to the well-ordering of the community. Our prisons are no longer allowed to be schools wherein the child who may have been led into some petty delinquency is made to perfect his education in crime, and whence he is to be sent back into the world an accomplished villain. The establishment of the Reformatory Prison at Parkhurst, in the Isle of Wight, is one very important step towards the repression of crime by checking its manifestation at the source, by withdrawing the young victims of society from the evil influences that have been suffered to surround them from their birth, replacing those influences by motives to virtuous conduct, and supplying the means for its pursuit.

From 1842 inclusive the distinction is made at the age of 15, and the numbers have been—

Years.	Males.	Females.	Total.
1842	1,432	240	1,672
1843	1,425	245	1,670
1844	1,391	205	1,596
1845	1,332	217	1,549
1846	1,426	214	1,640
1847	1,514	253	1,767
1848	911	176	1,087

If we could ever have doubted the great influence of instruction in restraining men from the commission of crimes, the proof of its efficacy would have been afforded by our criminal statistics.

In 1835 returns were first obtained of the degree of instruction that had been imparted to persons committed for trial; but as the inquiries only went to determine whether the parties could read and write, or read only, or were without even that elementary degree of learning, and did not distinguish such as had been superiorly instructed, but little advantage could be drawn from them. In the following year this deficiency was supplied, and we have since been made acquainted with the degrees of instruction of persons charged with offences, under the four following heads :—

1. Persons who can neither read nor write;
2. Persons who can read only, or read and write imperfectly;
3. Persons who can read and write well;
4. Persons who have received instruction beyond the elementary branches of reading and writing.

The returns under those heads in each year in England and Wales, from 1836 to 1848, have been as follows :—

Years.	Neither Read nor Write.		Read only, or Read and Write imperfectly.		Read and Write well.		Superior Instruction.		Instruction not ascertained.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1836	5,598	1,435	8,968	2,015	2,016	199	176	15	490	72
1837	6,684	1,780	10,147	2,151	2,057	177	98	3	421	94
1838	6,342	1,601	10,008	2,326	2,051	206	74	5	430	51
1839	6,487	1,709	10,523	2,548	2,201	261	74	4	546	90
1840	7,145	1,913	12,151	2,958	2,038	215	100	1	541	125
1841	7,312	1,908	12,742	2,990	1,839	214	126	..	541	88
1842	8,169	1,959	14,983	3,277	1,890	231	65	4	633	98
1843	7,344	1,829	13,832	3,153	2,127	244	134	6	754	108
1844	6,266	1,635	12,745	2,990	1,892	264	109	2	537	102
1845	5,698	1,740	11,215	2,964	1,859	178	86	3	483	77
1846	5,820	1,878	11,833	3,109	1,744	192	83	2	370	76
1847	6,848	2,202	13,562	3,418	2,015	230	79	3	399	77
1848	7,530	2,161	13,950	3,161	2,634	350	76	5	396	86

The most cursory glance at these figures must carry conviction to every mind that instruction has power to restrain men from the commission of crimes—of such a nature at least as will bring them before the bar of justice. If we class together those who can neither read nor

write, and those who have acquired only an imperfect acquaintance with those elementary branches of knowledge—the scaffolding merely for the erection of the moral edifice—we find that in the thirteen years comprised in the returns there were, out of 335,429 persons committed, and whose degrees of instruction were ascertained, the great proportion of 304,772, or more than 90 in 100, uninstructed persons, while only 1333 persons had enjoyed the advantages of instruction beyond the elementary degree, and only 29,324 had mastered, without advancing beyond, the arts of reading and writing.

These numbers embrace both males and females. If we examine the returns with the view of determining the moral influence of instruction upon females, we find that among the 335,429 persons above described there were 63,824 females, or 19·02 per cent. of the whole; but when we inquire in what proportions females are divided among the different classes as respects instruction, we see that among the 304,772 uninstructed persons there were 60,810 females, or 19·95 per cent.; while among 29,324 who could read and write well there were but 2961 females, or 10·09 per cent.; and among the better instructed, 1333 persons, there were only fifty-three females, or 3·97 per cent. The proportions in each 10,000 persons accused that were furnished by the males and females of these several classes, were as follows:—

	Males.	Females.	Total.
Those wholly uninstructed, and those who could read only, or read and write imperfectly . .	7,273	1,813	9,086
Those who could read and write well	786	88	874
Those superiorly instructed	38	2	40
	8,097	1,903	10,000

Of the fifty-three instructed females accused of crimes throughout England and Wales in thirteen years, the large proportion of fifteen belong to the first year of the series. Of these, twelve were accused of simple larceny, one for receiving stolen goods, one for fraud, and one for perjury. There were, consequently, in twelve years, only thirty-eight educated females brought to the bar of criminal justice, viz.:—three in 1837; five in 1838; four in 1839; only one in 1840; in 1841 not one educated female was committed for trial among 7,673,633 females then living in that part of the United Kingdom. In the remaining seven years, the numbers were in 1842, four; 1843, six; 1844, two; in 1845, three; in 1846, two; in 1847, three; and in 1848, five.

How much the internal peace of the country may be affected by the prevalence of ignorance, or the spread of knowledge, may be reasonably inferred from the state of instruction of persons tried at the Special Commission in October, 1842, arising out of the then recent rising in the manufacturing districts. This is shown by the following table:—

	Cheshire	Lancashire.	Staffordshire.	Total.	Centesimal Proportion.
Neither read nor write . .	26	47	81	154	27·16
Read only	30	26	99	155	27·34
Read and write imperfectly	28	97	59	184	32·45
Read and write well . . .	9	28	36	73	12·87
Superior instruction . . .	..	..	1	1	0·18
	93	198	276	567	100·00

The influence of instruction in preserving from legal offences would not be fully understood by a simple statement of the number of instructed persons accused of crimes. It would occupy too much space to go into a minute examination of the cases of accused persons in this class for each of the years in which the intellectual condition of the accused has been distinguished, but the subject is of too great importance to the moral health of the nation to allow of its being passed over without some attempt to point out the various consequences that have been seen to follow from even the imperfect degree of training which has hitherto been deemed sufficient for forming the minds and characters of Englishmen. For this purpose the following analysis of the criminal returns of England and Wales in 1840 and 1841, so far as they relate to well-instructed criminals, is offered.

In 1840 there were, as already stated, 100 males and one female, who had received instruction beyond reading and writing, committed for trial in the various counties of England and Wales. Of this number only fifty-nine (fifty-eight males and one female) were convicted, being under 59 per cent. of the number accused, while the convictions generally in that year exceeded 73 per cent. of the accused.

The convictions occurred in the following counties:—

Counties.	Inhabitants.	Inhabitants.
Cambridge . 1	out of a population of	164,509, or 1 conviction for 164,509
Chester . . 6	„	395,300 „ 1 „ 65,883
Cornwall . . 1	„	341,269 „ 1 „ 341,269
Durham . . 2	„	324,277 „ 1 „ 162,138
Essex . . . 1	„	344,995 „ 1 „ 344,955
Huntingdon . 1	„	58,699 „ 1 „ 58,699
Kent . . . 3	„	548,161 „ 1 „ 182,720
Lancaster . . 15	„	1,667,064 „ 1 „ 111,137
Monmouth . 1	„	134,349 „ 1 „ 134,349
Northampton. 1	„	199,061 „ 1 „ 199,061
Nottingham . 2	„	249,773 „ 1 „ 124,886
Salop . . . 1	„	230,014 „ 1 „ 230,014
Somerset . . 3	„	436,002 „ 1 „ 145,334
Stafford . . 4	„	510,206 „ 1 „ 127,551
Surrey . . 3	„	582,613 „ 1 „ 194,204
Warwick . . 5	„	402,121 „ 1 „ 80,424
Wilts . . . 2	„	260,007 „ 1 „ 130,003
Worcester . 1	„	233,484 „ 1 „ 233,484
York . . . 5	„	1,591,584 „ 1 „ 318,316
Anglesea . . 1	„	50,890 „ 1 „ 50,890

In twenty counties of England and Wales, with a population of 8,724,338 persons, there were convicted fifty-nine instructed persons, or [illegible] to every 147,870 inhabitants; while the remaining thirty-two coun-

ties, with a population of 7,182,491, did not furnish one convict who had received more than the rudest elements of instruction. It is even more worthy of remark, that Middlesex, the metropolitan county, with its 1,576,616 inhabitants, among whom the proportion of instructed persons is at least equal to that in any other county, did not furnish one educated convict—a fact which, considering the diversity of conditions and occupations, and the amount of temptations that assail its inhabitants, it would be most difficult to believe upon any testimony less certain than that of official returns.

The smallness of the number of criminals included in the class of educated persons might lead to the belief that a high standard of intellectual acquirement is adopted as a qualification for admission into that class; but it has been found upon inquiry that the reverse of this belief is true, and that—owing probably to the deficient education of some among the officers of prisons who make the returns—some have been represented as superiorly instructed who should have been included within the third class, viz.—those who read and write well.

Among the fifty-nine instructed persons convicted in 1840 were fourteen political offences, and one other, whose offence, that of offering a bribe at an election for a member of Parliament, might come under the same description; one for manslaughter—a lad of nineteen, whose punishment was the payment of a fine of 100*l.* There were eight instructed persons convicted of forgery and offences against the currency out of 430 persons of all degrees of instruction who were convicted of those offences—a truly satisfactory result, affording a sufficient answer to the objection urged (it is true) less frequently now than formerly, that to extend instruction would be to multiply the crime of forgery; three were cases of larceny *by servants*, and fifteen were cases of simple larceny. The remaining seventeen were cases of embezzlement, fraud, assaults, and other not very heinous offences.

That the offences were altogether of not a very dark character will appear from a description of the punishments awarded, viz.:—

Transportation for life	3	
„ 20 years	1	
„ 15 „	1	
„ 14 „	3	
„ 10 „	3	
„ 7 „	5	
	—	16
Imprisonment for 3 years	1	
„ 2 „	3	
„ 18 months	3	
„ 15 „	1	
„ 12 „	5	
„ 9 „	4	
„ 6 „	7	
„ 4 „	1	
„ 3 „	9	
„ 6 weeks	1	
„ 1 month	1	
„ 14 days	1	
	—	37

Fined 100*l.*	1	
„ 10*l.*	1	
„ 5*l.*	2	
„ 1*l.*	1	
	—	5
Discharged on sureties		1
Total		59

Of the above there were—	
Under 20 years old	5
Between 20 and 30 years	24
Between 30 and 45 years	23
Above 45 years	7
Total	59

Lest it should be thought that the experience of one year is insufficient to warrant the conclusions which would follow from the establishment of the facts just exhibited, recourse has been had to the criminal department of the Home Office, and through the kindness of Mr. Redgrave the following analysis of the convictions of instructed persons in 1841 has also been obtained.

It has been stated that 126 instructed persons were in that year accused in England and Wales. Of these, seventeen are included in the county of Somerset. An inquiry, made subsequent to the printing of the returns, has made it appear that these seventeen persons should have been classed among those who read and write well, not one among them having received any higher degree of instruction. The number is thus reduced to 109, of whom only 74, or 67·89 per cent., were convicted. These convictions occurred in the following counties:—

Counties.		Inhabitants.		Inhabitants.
Chester	1 in a population of	395,300, or	1 conviction for	395,300
Essex	1 „	344,995 „	1 „	344,995
Gloucester	1 „	431,307 „	1 „	431,307
Kent	8 „	548,161 „	1 „	68,520
Lancaster	19 „	1,667,064 „	1 „	87,740
Lincoln	1 „	362,717 „	1 „	362,717
Middlesex	18 „	1,576,616 „	1 „	87,590
Norfolk	1 „	412,621 „	1 „	412,621
Northumberland	2 „	250,268 „	1 „	125,134
Stafford	6 „	510,206 „	1 „	85,034
Surrey	2 „	582,613 „	1 „	291,306
Wilts	2 „	260,007 „	1 „	130,003
Warwick	8 „	402,121 „	1 „	50,265
Worcester	1 „	233,484 „	1 „	233,484
York	3 „	1,591,584 „	1 „	530,528

In fifteen English counties, with a population of 9,569,064, there were convicted seventy-four instructed persons, or one to every 129,311 inhabitants; while the twenty-five remaining counties of England and the whole of Wales, with a population of 6,342,661, did not among them furnish one conviction of a person who had received more than the mere elements of instruction. It will be remembered as a most interesting fact, one which speaks irresistibly in favour of a general system of education, that not one of the 109 was a female!

The offences of which the seventy-four were convicted were as follows:—

Manslaughter	3	Stealing letters from post-office	4
Wounding with intent to main; shooting at, &c.	3	Frauds	7
Rape	1	Forgery	8
Assault with intent to ravish	1	Uttering counterfeit coin	1
Common assaults	4	Forcible entry	1
Housebreaking	2	Perjury	1
Horse stealing	2	Neglect of duty in a police officer	1
Larceny by servants	8	Delaying the delivery of a letter	1
Larceny	21		74
Embezzlement	5		

The sentences pronounced were as follows:—

Sentenced to death (for rape; sentence commuted to one year's imprisonment)			1
Transportation for life		5	
„	15 years	3	
„	14 „	1	
„	12 „	1	
„	10 „	6	
„	7 „	7	
			23
Imprisonment—2 years		5	
„	18 months	1	
„	15 „	1	
„	12 „	12	
„	6 „	10	
„	4 „	2	
„	3 „	8	
„	2 „	1	
„	1 „	4	
„	1 day	1	
			45

Fined (one—40*s.*; one—1*s.*)	2	
Discharged on sureties	2	
Pardoned	1	
		5
Total		74

Their ages were—	
Under 20 years	9
Between 20 and 30 years	26
Between 30 and 45 years	31
Above 45 years	8
Total	74

In the following table (p. 656) the committals in England and Wales, in each year from 1836 to 1839, are divided so as to show the number of males and females charged in each of the six classes of crimes already described as used in the returns made by the Home Office, distributing them according to the absence of instruction, or the degree in which it had been imparted. Those persons whose intellectual condition was not ascertained are not included in the table. In consequence of a change made in the arrangement of the returns presented to Parliament, the same information cannot be given for any year later than 1839.

The feeling in favour of imparting instruction to the population generally has been rapidly spreading during the last few years, and it is not likely that we shall again see resistance offered in Parliament to a very moderate vote of money for that purpose, as was the case in 1839, when the grant of 30,000*l.*, brought forward and supported by all the power of the Government, was carried by only a bare majority. The convictions of all parties appear now to be engaged in favour of the opinion, then first practically enforced, that it is the duty of the State to provide, or at least to aid in providing, means for rescuing the multitude from the debasement inseparable from ignorance.

The French Government preceded us in making a classification of offenders according to their degrees of instruction, a course which has forcibly drawn attention to a subject for the elucidation of which no means previously existed. It seems deserving of remark, that an argument was at one time found by persons unfriendly to the spread of instruction, in the comparative state of crime in the most instructed and least instructed departments of France. It has been shown by

ENGLAND AND WALES.	Neither Read nor Write.		Read or Write Imperfectly.		Read and Write well.		Superior Instruction.	
	Males.	Fem.	Males.	Fem.	Males.	Fem.	Males.	Fem.
1836								
Offences against persons	419	61	844	101	302	20	48	..
Offences against property, with violence	380	29	686	40	150	2	8	..
Offences against property, without violence	4,460	1,257	6,789	1,767	1,386	164	92	14
Malicious offences against property	47	6	76	6	23	..	2	..
Forgery and offences against currency	65	38	162	30	47	5	11	..
Other offences	227	44	411	71	108	8	15	1
	5,598	1,435	8,968	2,015	2,016	199	176	15
1837								
Offences against persons	422	59	709	95	252	6	20	1
Offences against property, with violence	472	33	732	35	117	3	2	..
Offences against property, without violence	5,420	1,556	8,076	1,807	1,506	146	59	2
Malicious offences against property	34	4	45	8	12	..	2	..
Forgery and offences against currency	94	67	185	48	51	4	7	..
Other offences	242	61	400	68	119	18	8	..
	6,684	1,780	10,147	2,151	2,057	177	98	3
1838								
Offences against persons	454	59	776	97	276	16	23	1
Offences against property, with violence	510	41	809	33	129	6	1	..
Offences against property, without violence	5,102	1,420	7,882	2,040	1,469	159	34	4
Malicious offences against property	23	2	47	8	7	..	1	..
Forgery and offences against currency	87	44	205	66	87	5	6	..
Other offences	166	35	289	82	83	20	9	..
	6,342	1,601	10,008	2,326	2,051	206	74	5
1839								
Offences against persons	438	50	909	108	283	24	21	..
Offences against property, with violence	455	41	767	41	112	2	1	..
Offences against property, without violence	5,206	1,526	8,105	2,208	1,594	211	30	4
Malicious offences against property	40	2	35	8	18	..	..	..
Forgery and offences against currency	80	47	170	50	71	10	6	..
Other offences	268	43	537	43	123	14	16	..
	6,487	1,709	10,523	2,548	2,201	261	74	4

M. Guerry,* that in the departments where the greatest amount of instruction had been imparted, there the greatest amount of crime was found to exist, and thence the conclusion was hastily formed that instruction is unfavourable to innocence. An examination of the facts adduced by M. Guerry, aided by a little reflection, would have shown

* 'Essai sur la Statistique Morale de la France.'

how false was such a conclusion. That examination would have established the fact, that although there was a greater proportion of offences in the more enlightened departments, the criminals were found among the uninstructed, and reflection would soon have shown why this must be so. In an instructed community, those who had not partaken of the advantage of education would be placed in circumstances unfavourable to the pursuit of honest callings, since the instructed would command a preference from all who had employments to bestow; and besides, where ignorance abounds, the standard of morals must be low, and offences which could not be tolerated in a more enlightened community might pass unnoticed.

The criminal jurisprudence of Scotland is, in some respects, on a better footing than that of England. The existence of a public prosecutor relieves individuals against whom trespasses have been committed from the expense of time and the inconvenience otherwise of coming forward to accuse, and thus renders punishment more certain. It is, besides, the duty of the officers of justice to inquire into the circumstances attending every crime that is known to have been committed, without waiting, as in England, until some person shall have been accused and apprehended on account of the same. By the practice in Scotland it will sometimes happen that the inquiry thus made serves to point out the culprit, who, for want of such a preliminary investigation, would have remained undiscovered. It is, of course, impossible to determine in what degree this greater chance of detection and punishment deters from the commission of offences, but that it must have some good effect few will be disposed to doubt.

It is surprising that a system so superior in these respects to that of England should have been unaccompanied by any plan for the systematic registration of offences. The performance of this important duty seems to have been left very much to the discretion of local officers, and, as might be expected, it was very imperfectly done by some, and not even attempted by others, until the passing of the Act 1 Wm. IV., c. 37, which empowered the Secretary of State for the Home Department to require from the Lord Advocate of Scotland the preparation for Parliament of criminal returns for each year, according to a form specified in the statute, and which the Secretary of State had power to vary at his pleasure. The form prescribed by the Act was used up to 1835 inclusive, with the exception of 1831, the returns for which year have, by some accident, not appeared; but in 1836, and each subsequent year, the criminal returns for Scotland have been assimilated in form to those which relate to England and Wales.

The number of persons committed, convicted, sentenced to death and executed, in Scotland, in the following years, between 1830 and 1835, were—

Years.	Committed.		Convicted.		Sentenced to Death.		Executed.	
	Males and Females.		Males and Females.		Males and Females.		Males and Females.	
1830	2,063		1,274		8		8	
1832	1,898	533	1,194	383	5	1	2	..
1833	2,033	531	1,418	378	9	1	3	..
1834	2,125	586	1,403	387	5	1	4	..
1835	2,225	612	1,473	427	5	1	4	1

The number of committals in Scotland since 1835 have been—

Years.	Males.	Females.	Total.
1836	2,223	699	2,922
1837	2,391	735	3,126
1838	2,609	809	3,418
1839	2,490	919	3,409
1840	2,866	1,006	3,872
1841	2,533	1,029	3,562
1842	3,025	1,164	4,189
1843	2,737	878	3,615
1844	2,617	958	3,575
1845	2,515	1,022	3,537
1846	2,901	1,168	4,069
1847	3,320	1,315	4,635
1848	3,490	1,419	4,909
1849	3,228	1,129	4,357

Distinguishing the accused according to the classes of crimes, and the circumstances of instruction, so far as these were ascertained, the numbers were in each year as follows.—(*See* pp. 659-661.)

The commitments for crime in Scotland are much fewer in proportion to the population than in England. In 1841 the proportions were, in England and Wales, one committal for 573 persons, and in Scotland one for 738 persons. The comparison in favour of Scotland in this respect, as evincing a greater degree of personal respectability, is, however, at least neutralized by the much larger proportion of females committed in Scotland. In that year (1841) there was committed in England and Wales one in every 1565 females living, and in Scotland one in every 1343. The proportion of convictions to committals is usually greater in Scotland than in England. Those proportions in each of the fourteen years from 1836 to 1849 were—

Years.	England and Wales.	Scotland.
1836	70·39 per cent.	73·64 per cent.
1837	72·37 „	73·64 „
1838	72·68 „	76·74 „
1839	72·95 „	75·82 „
1840	73·29 „	75·13 „
1841	73·05 „	74·87 „
1842	72·60 „	75·08 „
1843	71·28 „	71·48 „
1844	71·28 „	76·05 „
1845	71·60 „	75·74 „
1846	72·26 „	75·32 „
1847	74·71 „	76·76 „
1848	75·45 „	75·14 „
1849	75·49 „	75·14 „

SCOTLAND.	Neither Read nor Write.		Read or Write Imperfectly.		Read and Write Well.		Superior Instruction.	
	Males.	Fem.	Males.	Fem.	Males.	Fem.	Males.	Fem.
1836								
Offences against persons	82	10	377	50	181	1	20	..
Offences against property, with violence	64	14	132	16	48	6	7	..
Offences against property, without violence	195	126	448	251	142	38	19	1
Malicious offences against property	9	1	13	1	6	..	..	..
Forgery, and offences against currency	9	13	20	12	16	4	3	..
Other offences	7	9	75	32	44	3	5	..
	366	173	1,065	362	437	52	54	1
1837								
Offences against persons	66	12	340	41	187	2	15	1
Offences against property, with violence	75	27	242	44	52	4	4	1
Offences against property, without violence	260	185	603	292	159	20	23	..
Malicious offences against property	4	..	18	2	10	1	2	..
Forgery and offences against currency	12	10	27	7	24	3	7	1
Other offences	28	14	115	41	47	2	14	..
	445	248	1,345	427	479	41	65	3
1838								
Offences against persons	67	13	396	45	194	4	44	..
Offences against property, with violence	68	32	266	98	86	15	3	..
Offences against property, without violence	171	135	637	337	216	33	26	1
Malicious offences against property	8	1	22	4	16	..	4	1
Forgery, and offences against currency	8	11	39	16	21	3	9	..
Other offences	31	6	169	41	36	6	5	..
	353	198	1,529	541	569	61	91	2
1839								
Offences against persons	66	13	364	40	169	5	26	2
Offences against property, with violence	83	29	262	73	62	5	2	..
Offences against property, without violence	264	199	668	427	164	27	14	1
Malicious offences against property	2	2	24	5	11	1	..	..
Forgery, and offences against currency	12	9	56	34	23	4	8	..
Other offences	26	5	120	31	36	1	4	..
	453	257	1,494	610	465	43	54	3
1840								
Offences against persons	93	30	416	59	161	2	18	..
Offences against property, with violence	86	39	265	81	58	6	5	1
Offences against property, without violence	300	210	775	413	190	37	20	3
Malicious offences against property	3	..	24	4	22	..	6	..
Forgery, and offences against currency	8	13	56	33	28	6	9	..
Other offences	30	19	142	20	45	4	9	..
	540	311	1,678	619	504	55	67	4

SCOTLAND.	Neither Read nor Write.		Read or Write Imperfectly.		Read and Write Well.		Superior Instruction.	
	Males.	Fem.	Males.	Fem.	Males.	Fem.	Males.	Fem.
1841								
Offences against persons	92	23	445	71	174	5	8	..
Offences against property, with violence	65	26	242	52	34	6	4	..
Offences against property, without violence	204	180	650	480	193	55	21	3
Malicious offences against property	7	5	30	6	18	..	..	..
Forgery, and offences against currency	12	11	48	32	19	4	2	..
Other offences	55	16	147	35	38	8	4	..
	435	261	1,562	676	476	78	39	3
1842								
Offences against persons	127	26	489	81	190	4	35	1
Offences against property, with violence	92	36	342	97	49	5	9	..
Offences against property, without violence	259	211	818	563	170	29	25	3
Malicious offences against property	4	2	64	7	15	1	3	..
Forgery, and offences against currency	9	22	67	32	33	3	4	..
Other offences	30	17	113	31	38	1	12	..
	521	314	1,893	791	495	43	88	4
1843								
Offences against persons	96	16	432	64	117	3	14	..
Offences against property, with violence	82	27	337	78	35	3	6	..
Offences against property, without violence	254	142	835	418	130	19	31	1
Malicious offences against property	5	3	28	5	12	1	3	..
Forgery, and offences against currency	10	18	48	44	19	1	3	..
Other offences	40	11	82	21	37	1	6	..
	487	217	1,762	630	406	28	63	1
1844								
Offences against persons	97	20	402	59	137	8	24	..
Offences against property, with violence	76	15	314	87	47	10	1	..
Offences against property, without violence	275	202	744	446	121	37	19	1
Malicious offences against property	..	2	16	1	11	1	2	..
Forgery, and offences against currency	12	8	58	23	21	2	9	..
Other offences	44	14	122	16	38	2	8	..
	504	261	1,656	632	375	60	36	1
1845								
Offences against persons	115	17	403	70	177	8	31	..
Offences against property, with violence	78	27	274	79	37	7	1	1
Offences against property, without violence	241	196	710	487	153	46	10	1
Malicious offences against property	8	1	39	6	8	3	1	..
Forgery, and offences against currency	7	9	34	25	28	3	3	..
Other offences	30	11	87	22	29	2	6	1
	479	261	1,547	689	432	69	52	3

SCOTLAND.	Neither Read nor Write.		Read or Write Imperfectly.		Read and Write Well.		Superior Instruction.	
	Males.	Fem.	Males.	Fem.	Males.	Fem.	Males.	Fem.
1846								
Offences against persons . . .	177	27	511	66	212	11	25	1
Offences against property, with violence	91	52	266	69	36	6	3	..
Offences against property, without violence	253	214	688	546	202	87	24	3
Malicious offences against property	14	3	57	7	19	2	1	..
Forgery, and offences against currency	6	9	35	26	19	2	5	..
Other offences	39	18	137	16	66	..	7	..
	580	323	1,694	730	554	108	65	4
1847								
Offences against persons . . .	193	35	510	75	182	12	16	..
Offences against property, with violence.	135	43	418	112	65	6	4	..
Offences against property, without violence	312	236	822	608	242	72	15	..
Malicious offences against property	12	4	34	8	14	1	9	..
Forgery, and offences against currency	11	13	46	31	21	3	2	..
Other offences	43	11	136	43	43	2	10	..
	706	342	1,966	877	567	96	56	..
1848								
Offences against persons . . .	157	30	605	92	236	14	28	..
Offences against property, with violence	104	30	466	138	66	10	2	..
Offences against property, without violence	265	198	827	669	232	71	30	..
Malicious offences against property	8	3	28	6	10	2	3	..
Forgery, and offences against currency	18	7	65	45	27	4	5	..
Other offences	59	32	151	57	77	6	9	4
	611	300	2,142	1,007	648	107	77	4
1849								
Offences against persons . . .	124	30	526	62	207	12	33	..
Offences against property, with violence	96	46	392	95	58	12	2	..
Offences against property, without violence	289	218	838	498	206	56	17	2
Malicious offences against property	15	3	27	6	19	..	2	..
Forgery, and offences against currency	15	10	65	31	18	4	14	1
Other offences	37	8	133	22	60	2	6	3
	576	315	1,981	714	568	86	74	6

This result is probably owing to the investigation by competent persons which precedes commitment in Scotland; a circumstance which may, in some measure, account also for the fewer commitments proportioned to population than are made in England.

The proportionate ages at which committals were made in each of the years 1836 to 1849, in Scotland, were—

AGES.	1836	1837	1838	1839	1840	1841	1842
Aged 12 years and under . . .	2·40	2·69	2·16	3·11	3·30	3·68	3·65
Above 12, and not exceeding 16 .	12·60	14·01	12·69	14·99	14·41	13·81	12·40
„ 16 „ 21 .	24·88	23·80	26·30	25·84	22·83	25·10	25·13
„ 21 „ 30 .	31·79	29·72	29·43	28·30	31·07	29·81	30·60
„ 30 „ 40 .	15·67	15·64	16·00	15·89	15·70	15·75	16·54
„ 40 „ 50 .	6·98	7·74	6·20	7·27	7·41	7·16	6·87
„ 50 „ 60 .	3·01	3·33	2·57	3·11	2·80	3·00	2·98
Above 60 years	0·82	1·34	0·76	0·91	1·53	1·24	1·28
Ages unknown	1·85	1·73	3·89	0·58	0·77	0·45	0·55
	100·	100·	100·	100·	100·	100·	100·

AGES.	1843	1844	1845	1846	1847	1848	1849
Aged 12 years and under . . .	3·26	4·22	3·31	2·93	3·13	2·00	2·16
Above 12, and not exceeding 16 .	11·62	14·99	11·76	13·17	13·57	11·37	11·31
„ 16 „ 21 .	27·22	24·78	25·05	23·96	24·83	24·77	25·09
„ 21 „ 30 .	32·00	28·09	31·49	31·90	30·27	32·45	33·05
„ 30 „ 40 .	14·73	15·61	15·50	15·56	16·40	16·72	16·21
„ 40 „ 50 .	6·55	7·94	8·59	7·80	7·92	8·54	7·87
„ 50 „ 60 .	3·23	2·88	2·82	3·34	2·63	2·87	3·19
Above 60 years	1·30	1·31	1·36	1·10	1·17	1·26	1·01
Ages unknown	0·09	0·18	0·12	0·15	0·08	0·02	0·11
	100·	100·	100.	100·	100·	100·	100·

The proportionate numbers under 16 years are much greater than in England. The actual number of boys and girls charged with offences were—

Years.	Boys.	Girls.	Total.
1836	380	58	438
1837	482	70	552
1838	426	82	508
1839	491	125	616
1840	554	135	689
1841	497	126	623
1842	520	153	673
1843	463	75	538
1844	554	133	687
1845	444	89	533
1846	517	138	655
1847	729	145	874
1848	516	140	656
1849	476	111	587

The increase in these numbers, from year to year, is even greater proportionally to the number than in England.

The number of accused persons in Scotland, to whom instruction beyond reading and writing had been imparted, are given in a preceding table. It has not been practicable to obtain any analysis of these cases for any year except 1836, when the number of instructed persons accused was 55, of whom one was a female, the whole numbers accused having been 2223 males and 699 females. Of the fifty-five instructed persons accused, forty-one were convicted. Their offences were—

Bestiality	1
Assaults	14
Housebreaking	2
Theft—14 males, 1 female	15
Fraud	2
Forgery	3
Perjury	1
Breach of the peace	1
Other offences	2
Total	41

The punishments awarded were—

Transportation for life	2	
„ 14 years	1	
„ 7 „	1	
	—	4
Outlawry		2
Imprisonment for 12 months	1	
„ 9 „	1	
„ 8 „	1	
„ 6 „	2	
„ 4 „	2	
„ 3 „	2	
„ 2 „	7	
„ 40 days	1	
„ 1 month	5	
„ 20 days	1	
„ 14 „	3	
„ 10 „	1	
	—	27
Fined 5*l.* 0*s.*	1	
„ 3*l.* 3*s.* each	2	
„ 2*l.* 2*s.*	1	
„ 1*l.* 0*s.*	1	
„ Sum not mentioned	2	
	—	7
Discharged on giving surety		1
Total		41

The ages of the forty-one convicts were—

Under 20 years	2
Between 20 and 30 years	23
„ 30 and 45 years	12
Above 45 years	4
Total	41

During the fourteen years embraced by the returns we have been examining, there were only thirty-nine educated females accused of offences in Scotland. We have not any means for ascertaining the result of these accusations, but comparing that number with the result in England, we find that it is far less favourable. Taking the difference of population into the calculation, there should have been in the fourteen years not more than eight educated females accused in Scotland to be equal to the fifty-three accused in the same period in England and Wales. This difference is probably owing to the more general spread of instruction in Scotland, and therefore to the greater proportion of the population qualified to rank among well-instructed persons.

During the year for which we are thus enabled to analyze the criminal returns, there were only fifteen counties among the thirty-two into which Scotland is divided that furnished causes for criminal accusations against educated persons. The returns do not distinguish the counties in which convictions followed; but in the following table (p. 664) will be seen the numbers of persons of that class who were accused in each of the ten years, 1836 to 1845, in the several counties of Scotland.

The criminal returns for Ireland have not hitherto been made to distinguish between persons who read and write well, and those who have been instructed in any higher branch of knowledge: it will not be possible, therefore, to carry this line of examination into the criminal statistics of that part of the United Kingdom; but in closing the remarks which the facts here recorded, as experienced in Great Britain,

COUNTIES.	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845
Aberdeen. . . .	13	12	4	2	3	2	5	3	..	1
Argyle	..	..	6	2	..	3	9	7	4	4
Ayr	2	..	..	5	..	..	3	6	2	6
Banff	..	..	..	..	1	..	..	..	..	..
Berwick	..	..	..	2	1	..	4	1	2	1
Bute	..	..	..	..	1	..	..	..	1	..
Calthness. . . .	..	..	1	..	..	..	1	1	..	..
Clackmannan . .	..	1	..	..	1	..	1	..	3	..
Dumbarton . . .	..	1	..	..	2	1	1	1	5	..
Dumfries	1	..	2	1	3	..	1	2	2	1
Edinburgh . . .	6	14	22	9	9	4	9	..	6	3
Elgin and Moray .	..	..	..	1	..	1	..	..	..	..
Fife	1	..	1	2	3	4	9	1	4	..
Forfar	6	7	7	2	3	6	2	6	1	3
Haddington . . .	1	..	3	1	2	1	1	..	2	1
Inverness. . . .	..	..	1	..	1	..	..	1	7	2
Kincardine . . .	1	1	..	2	3	..	..	..	..	..
Kinross	1	5	..	..	1	..	..	..	..	..
Kirkcudbright . .	..	..	..	1	..	1	..	..	..	1
Lanark	11	14	12	5	11	5	14	19	9	7
Linlithgow . . .	1	2	6	6	3	2	4	1	2	2
Nairn	..	1	1	..	..	..	..	..	..	..
Orkney and Zetland	..	..	2	2	1	..	1	1	1	1
Peebles	..	..	..	..	..	..	1	..	..	..
Perth	2	1	8	..	4	..	2	4	1	5
Renfrew	5	4	7	7	8	2	14	6	12	12
Ross and Cromarty .	1	..	1	..	..	..	1	..	..	..
Roxburgh . . .	3	3	3	3	7	5	6	1	..	2
Selkirk	..	1	..	1	1	1	..	1	..	..
Stirling	..	1	6	2	2	1	1	2	..	1
Sutherland . . .	..	..	..	..	..	3	1	..	..	1
Wigton	..	..	..	1	..	..	1	..	..	1
Total . . .	55	68	93	57	71	42	92	64	64	55

so naturally called for, regarding the influence of education in restraining from the commission of crime, it is necessary to guard against the inference that to instruct a man beyond the merest elements of human acquirement will suffice to destroy all tendency to evil courses, and that we require nothing more than the initiation of the people generally into some certain branches of school learning in order to render our prisons useless, and to shut up our courts of justice. That amid the many thousands who are yearly called to answer for offences committed against the persons and the property of their fellow-citizens, so very small a proportion as 44 in 10,000 in England, and 180 in 10,000 in Scotland, should have belonged to classes having received the benefit of something beyond the merest rudiments of knowledge, ought not to lead us to believe that the same amount of instruction, if imparted to all, would diminish offences in anything like that proportion. In communities where the great mass of the people are left in ignorance, and only a few, comparatively, are instructed, those few will find themselves in a far better position than the mass for obtaining honest employment, and thus will have fewer temptations to withstand. If all were equally instructed, this condition, of course, could not exist, and then we might be better able to estimate at its true value the moral influence of

instruction. Knowing what we know of the quality of education as it has usually been imparted to the youth of this country, dare we hope that its restraining influence would be great? It is true, we might even then expect to put an end to much of the violence and fraud by which the community is now disgraced. Merely instructed persons would better calculate the worldly advantages and disadvantages of right and wrong conduct; and who can estimate how much of crime and consequent misery in the world result from miscalculation! But further, is it not certain that an instructed community would be able to apply its energies more beneficially for the whole than is possible where general ignorance prevails—that employments would be more certain and more profitable, and temptations to dishonesty fewer and weaker?*

It is a common remark, that in every community we must look to those who occupy the middle rank of society for the greatest amount of virtue; and we may believe that the remark would not have received, as it has, the general assent of society, unless it had been supported at least by appearances. Is it true, then, that a condition midway between poverty and affluence is the most favourable to human excellence, meaning, by that term, virtuous conduct proceeding from principle? This may well be doubted. We may find that a smaller proportion of open profligacy exists among persons placed in that condition than is apparent among the richer class, and in the ranks of the poor, without being therefore forced to admit that the middle class is governed by a nicer sense of propriety or juster views of duty than others. May it not be, that the greater decency of their conduct is the result of circumstances rather than of principle; that, being removed from the temptations offered by idleness and opportunity to the rich, and from the yet stronger temptations of want, from which there is no escape for the uninstructed poor, they are constrained to pursue a routine of daily employment which leaves but little time for the indulgence of immoral pursuits? The judgment of men upon the conduct of others can only be formed upon a view of their outward acts, since we cannot duly appreciate their motives for what they do, nor the degree of fortitude exercised in what they resist; else we might probably find that good dispositions are pretty equally divided, and should be made to acknowledge their existence under circumstances apparently the most unpromising.

The good effect which honest employment is calculated to produce upon even the worst of criminals, and under apparently the most unfavourable circumstances, may be learned from the following testimony offered by the Honourable Grey Bennet to the Committee on the State

* The proportion of offenders in England and Wales, in 1841, was 1 in 573 of the population; in Scotland, 1 in 742; a difference in favour of the latter which it is fair to attribute in great part, if not entirely, to the more general spread of instruction as compared in that respect with England.

of the Police of the Metropolis, which sat in 1817, and of which he was chairman :—

"I had been there (Newgate prison) a few weeks before, and found it, as usual, in the most degraded and afflicting state. The women were then mixed all together, old and young—the young beginners with the old offenders—the girl for the first offence with the hardened and drunken prostitute—the tried with the untried—the accused with the condemned—the transports with those under sentence of death; all were crowded together in one promiscuous assemblage, noisy, idle, and profligate; clamorous at the gratings soliciting money, and begging at the prison window with spoons attached to the ends of sticks. In little more than a fortnight the whole scene was changed, through the humane and philanthropic exertions of Mrs. Fry, the wife of a banker in the city. In the first yard I visited were seventy-eight women; sixty-five of these were employed on needlework which had been procured for them. In one fortnight the work done was 344 shirts, 64 shifts, 59 aprons, and 250 pinafores. There are yet no proper means for classification and arrangement of the prisoners, but the change in their appearance was most striking. The bold hardened look of guilt was gone—the impudent system of begging had ceased—all were busy and cheerful, and at least looked contented and happy. I asked in all the rooms of the prisons if they preferred occupation to idleness, and if they approved of the change? The answer was unanimously, yes; and several with tears in their eyes said, 'If we had had any means of gaining our bread, we should not have been here.'"

What a lesson in legislation may be learned from this declaration! It is not pretended that the active interference of Government can possibly be given, or that if it were possible it would be efficacious, in providing honest employments for the people. But much may be done in removing legislative impediments that lie in the way of industry, in opening new markets, and extending those already open to our commerce; and until all that is possible in this respect shall have been accomplished, and all that is needed in the way of education and moral training of the people shall have been supplied, is it unjust to say that a part, at least, of the criminality, induced by restrictions and by ignorance, lies at the door of the legislature?

If forced to leave the question here, there would, however, be but little cause for hoping that in future years the rapid march of crime which we have witnessed could be arrested. Our hopes in this respect must be based upon the conviction, fast gaining converts among all that are powerful to influence the course of legislation, that to impart mechanically the rudiments of instruction, or even to carry a pupil through a course of classical learning, should not be considered education—that the educator must form the character as well as store the

memory—must implant as living principles within the pupil's heart a reverence for truth and justice. To imagine that this end can be attained without awakening the spirit of religion in his heart, were worse than useless; but when this chord, which can be found when sought for in every human breast, shall once be rightly attuned, all difficulty must be over, and it must thenceforth be next to impossible for any degree of temptation to draw a man into the ranks of habitual criminality.

The Irish returns of crime have not until of late years been rendered with regularity. The number of committals and convictions in each of the eight years from 1805 to 1812 inclusive were as follows:—

Years.	Committed.	Convicted.	Years.	Committed.	Convicted.
1805	3,600	609	1809	3,641	848
1806	3,781	643	1810	3,799	819
1807	3,522	608	1811	4,162	1,113
1808	3,704	668	1812	4,386	1,458

The proportion of convictions to committals in the above years is on the average but little more than 22 per cent., affording an unfavourable view of the administration of justice in Ireland at that time. In each of the six years from 1805 to 1810 there were executed—

Years.					Years.				
1805	42,	of whom	9	were for murder.	1808	53,	of whom	15	were for murder.
1806	42	"	10	"	1809	66	"	13	"
1807	55	"	10	"	1810	29	"	13	"

Between 1812 and 1822 there must have occurred either a fearful increase of crime, or a much more vigilant police, for the committals in that interval of ten years were trebled in number. The returns from 1822 down to the present time have been given with regularity, and we find that the committals and convictions, the numbers sentenced to death, and the executions in each year from 1822 to 1834, were as follows:—

Years.	Committed.			Convicted	Sentenced to Death.	Total Executed.	Executed for Murder.
	Males.	Females.	Total.				
1822	12,766	2,485	15,251	7,572	341	101	42
1823	12,240	2,392	14,632	7,285	241	61	18
1824	12,444	2,814	15,258	7,742	295	60	41
1825	12,563	2,952	15,515	8,571	181	18	9
1826	13,268	3,050	16,318	8,716	281	34	17
1827	14,598	3,433	18,031	10,207	346	37	12
1828	11,919	2,764	14,683	9,269	211	21	16
1829	12,471	2,800	15,271	9,449	224	38	21
1830	12,709	3,085	15,794	9,902	262	39	14
1831	13,148	3,044	16,192	9,605	307	37	25
1832	13,160	2,896	16,056	9,759	319	39	17
1833	14,923	2,896	17,819	11,444	237	31	26
1834	17,757	3,624	21,381	14,253	197	43	31

In 1835 the returns were assimilated in most respects to those made in England and Scotland, exhibiting the number of offenders, male and female, in each of the six divisions or classes of crimes as already explained;* distinguishing also the ages of persons committed, and (with the important omission of those instructed beyond reading and writing) showing their degree of instruction also.

* See page 645.

The number of committals and convictions in each of the six divisions, in the years since 1834, have been as follows:—

Years.	First Class.		Second Class.		Third Class.	
	Committed	Convicted.	Committed	Convicted.	Committed	Convicted.
1835	7,622	5,832	516	228	6,175	3,695
1836	7,769	6,099	671	331	6,593	4,259
1837	4,132	2,631	662	344	6,963	4,478
1838	4,325	2,710	610	263	7,436	4,529
1839	7,457	3,156	1,255	352	11,143	5,695
1840	5,708	2,584	1,146	334	10,514	5,663
1841	5,297	2,324	1,127	316	8,313	4,496
1842	5,191	2,128	1,150	414	8,402	4,584
1843	5,442	2,172	1,187	387	6,188	3,426
1844	5,482	2,093	1,058	278	6,377	3,397
1845	4,827	1,869	1,112	288	5,686	3,126
1846	5,110	2,186	1,297	503	6,603	3,732
1847	4,549	1,617	2,229	993	17,484	10,102
1848	5,966	2,057	2,561	971	19,547	11,549
1849	5,275	1,856	2,682	1,163	23,173	14,596

	Fourth Class.		Fifth Class.		Sixth Class."	
1835	369	174	184	86	6,309	5,197
1836	500	281	214	114	8,144	7,026
1837	198	111	161	104	2,688	1,868
1838	122	35	194	105	3,036	1,967
1839	306	74	179	76	6,052	2,696
1840	218	82	201	100	6,045	2,431
1841	315	48	153	62	5,591	2,041
1842	253	54	137	68	6,053	2,626
1843	193	51	150	70	6,966	2,514
1844	211	55	123	55	6,197	2,164
1845	216	49	86	36	4,769	1,733
1846	191	37	99	52	5,192	2,129
1847	321	140	183	87	6,443	2,294
1848	926	410	202	104	9,320	3,115
1849	707	317	271	140	9,881	3,130

The total numbers of males and females committed, of convictions, of sentences to death, and of executions, in these fifteen years, were:—

Years.	Committed.			Convicted	Sentenced to Death.	Total Executed.	Executed for Murder.
	Males.	Females.	Total.				
1835	17,398	3,807	21,205	15,216	179	27	19
1836	19,619	4,272	23,891	18,110	175	14	12
1837	11,320	3,484	14,804	9,536	154	10	10
1838	11,764	3,959	15,723	9,609	39	3	3
1839	20,094	6,298	26,392	12,049	66	17	15
1840	17,835	5,998	23,833	11,194	43	..	..
1841	15,507	5,289	20,796	9,287	40	5	5
1842	15,770	5,416	21,186	9,874	25	4	4
1843	15,250	4,876	20,126	8,620	16	5	4
1844	14,799	4,649	19,448	8,042	20	9	8
1845	12,807	3,889	16,696	7,101	13	3	3
1846	14,204	4,288	18,492	8,639	14	7	4
1847	23,552	7,657	31,209	15,233	25	8	8
1848	28,765	9,757	38,522	18,206	60	28	24
1849	31,340	10,649	41,989	21,202	38	15	13

On inspecting these figures one cannot fail to be struck with the exceedingly great degree of irregularity experienced in the latter years of the series. There is the same and (population considered) even a greater rapidity of increase than we have seen in England, but attended with the most violent alternations. The committals, which were 23,891 in 1836, fell in the following year to 14,804, or 38 per cent.; in 1838 the number was nearly as moderate; but in 1839 it jumped to 26,392, an advance of 67 per cent., and which exhibited the proportion of accusations to the population as 1 in 307, while in England during the same year it was as 1 in 634. Between 1836 and 1837 the convictions were lessened in a greater degree than the committals, viz., from 18,110 to 9536, or 47 per cent.; while the increase of convictions in 1839 from 1838 was only 25½ per cent. The fearful augmentation of both committals and convictions in the last three years of the series is clearly one of the consequences of the dearth caused by the potato rot.

The greatest amount of fluctuations have occurred with respect to four heads of offences,—assaults, illicit distillation, riot and rescue, and misdemeanors not otherwise described. If the numbers found under those titles are subtracted from the whole, the agreement between the various years will be in a great measure established.

The number of accused persons whose ages were not ascertained has been so great in Ireland that all computation on that head would be useless, and is omitted. In England and Scotland the numbers unknown have been insignificant.

To persons who have had occasion to pursue statistical inquiries on questions connected with Ireland, it will not be matter for much surprise that, in this particular matter of ascertaining the ages of persons charged with offences, there should be evinced much want of care. In one of the years during which those ages have been required (1837), they were obtained with a tolerable degree of completeness, the ages of only 396 out of 14,804, or 2·67 per cent., being deficient, proving thereby that the accomplishment of the task is within the ability of the officers to accomplish; two years later we find that out of 26,392 persons acnused, the ages are wanting of 10,612, or 40·20 per cent.; and although in the two following years the deficiency is not so considerable, it is still out of all reason great. The numbers of accused persons whose ages were not ascertained in each of the years during which this branch of inquiry has been ordered in England, Scotland, and Ireland respectively, have been as follows:—

Years.	England.	Scotland.	Ireland.	Years.	England.	Scotland.	Ireland.
1835	396	..	758	1842	619	23	5,046
1836	438	54	709	1843	748	3	5,880
1837	423	54	396	1844	579	6	6,020
1838	410	133	1,109	1845	468	4	4,404
1839	560	20	10,612	1846	413	6	5,176
1840	573	30	5,559	1847	417	4	7,111
1841	559	16	4,873	1848	442	1	[illegible]

The same degree of neglect has been shown in collecting information concerning the degrees of instruction, although the inquiries on this head in Ireland have been simplified in a way to deprive the returns of a great part of their value if even they had been made to include the whole number, by omitting to distinguish, as is done in England and Scotland, persons instructed beyond mere reading and writing. The numbers as to whom their intellectual condition was not ascertained in the several years, were—

Years.		Years.	
1835	4,889 in 21,205	1843	6,116 in 20,126
1836	1,817 „ 23,891	1844	6,131 „ 19,448
1837	901 „ 14,804	1845	4,806 „ 16,696
1838	1,415 „ 15,723	1846	5,237 „ 18,492
1839	11,164 „ 26,392	1847	7,184 „ 31,209
1840	5,345 „ 23,833	1848	10,952 „ 38,522
1841	4,969 „ 20,796	1849	12,013 „ 41,989
1842	5,357 „ 21,186		

That the deficiencies here noticed arise from neglect, and not from any peculiar difficulty attending such inquiries in Ireland, is evident by the fact, that in the two years 1840 and 1841, the returns for which have been examined for that purpose, there were five counties from which these returns in both years were complete, and fourteen other counties where the deficiencies were but trifling, while in several of the remaining counties whence the inquiries have been most unsatisfactorily answered, the numbers deficient in respect both of age and of instruction are identical, or nearly so, *e. g.*—

COUNTIES.	Deficient in the Returns for			
	1840		1841	
	Ages.	Instruction.	Ages.	Instruction.
Cavan . . .	418	418	410	448
Cork	562	552	952	952
Donegal . . .	96	98	67	67
Down	66	66	19	19
Dublin . . .	41	41	..	..
Galway . . .	778	777	258	258
Mayo	217	217	498	498
Sligo	211	211	166	166
Wicklow . . .	129	129	70	70

Comparing the three divisions of the kingdom with each other in respect of juvenile delinquency, we find that the centesimal proportions of persons charged with offences who were under sixteen years of age were as follows:—

	1835	1836	1837	1838	1839	1840	1841	Mean.
England	11·37	11·55	11·24	11·50	11·82	11·59	11·57	11·52
Scotland	..	15·00	16·70	14·85	18·10	17·80	17·49	16·65
Ireland	5·42	6·00	7·09	6·73	9·61	8·46	9·16	7·49

The comparatively small proportion of offending children in Ireland is probably owing to the preponderance in number in that island of crimes of violence, for the commission of which children are physically disqualified, while the larger proportion of young offenders in Scotland may be referred to the circumstance already mentioned of the superior general instruction of the Scotch people, and which opens to them during manhood more opportunity for honest employment than is found in England. If calculated according to the population in each division of the kingdom, and not in relation to the aggregate number of offenders, it will be found that the mean number of committals of children under sixteen years of age during the above years, was—

In England	1 in 5,564	of the population.
Scotland	1 „ 4,495	„
Ireland	1 „ 6,244	„

proportions much more nearly in agreement with each other than they are with the whole number of offenders, which seems to show that the various circumstances which determine the tendencies to crime in the different divisions of the kingdom do not develop themselves so as greatly to influence conduct in early years of life.

The subject of prison discipline is one which has of late years claimed much attention on the part of the Government and the legislature, and various extensive reforms have been effected in the management of prisoners. Until of late years, the only quality about a prison that seems to have been thought indispensable was its strength to retain its inmates; and if the gaoler was possessed of activity and personal courage, it was never questioned whether he were ignorant or instructed, humane or brutal in disposition, correct or dissolute in his conduct. Mr. Fielding, one of the magistrates of Queen-square Police Office, when examined before the Committee of the House of Commons on the Police of the Metropolis in 1816, respecting the sufficiency of prison accommodation, is reported to have said—"As to the Coldbath-fields prison, I was of the number of justices who voted for the appointment of the man (as governor) who is there now—I mean Atkins, who I thought the best suited man that could be found for the purpose, being a man of great intrepidity, which is the greatest quality that can recommend such a man." A quarter of a century has since passed, and we have in the interval come to the belief that other qualities beyond mere personal intrepidity are needed to fit a man for having the custody and control of criminals. A class of men very different from those among whom Atkins, the Bow-street runner, was selected, are now placed in such situations, and somewhat more is required at their hands than that they shall keep their prisoners in subjection by brute force.

An Act was passed in 1835 for effecting greater uniformity of prac-

tice in the government of prisons, and for appointing inspectors of prisons in Great Britain. Under this Act five gentlemen have been appointed to visit and inspect every gaol, bridewell, house of correction, penitentiary, or other prison in any part of Great Britain; to examine any person holding office in the same, to inspect all books and papers, and to inquire into all matters relating to such prisons, to make a report in writing on or before the 1st of February in each year as to the state of each prison visited, and to transmit the same to the Secretary of State for the Home Department, who is required to lay it before Parliament within fourteen days. The appointment of these gentlemen, and still more the publication of their Reports, have already been attended with the happiest results in bringing to light and remedying various abuses, in fixing public attention to the subject, and in causing experiments to be undertaken as to the possibility of reforming and reclaiming criminals. Under their inspection, our prisons have now, for the most part, ceased to be schools for perfecting in villany the half-taught scoundrel, and are converted into places where penitence and reformation are, at least, possible.

The establishment of the present metropolitan police force, which occurred in 1829, a measure which has since been copied in most of our populous towns, has substituted an efficient and respectable body of men for the Townsends, the Vicarys, and the Atkinses, of former days, who were encouraged by the system then in use to become the associates of thieves, at what were technically called "flash-houses," and to wink at their malpractices until they should have been led on to the commission of some offence, their conviction for which would bring a substantial reward to the thief-taker. Under such a system, prevention of crime was out of the question; its punishment only was thought of, and this only when it had reached to a point of enormity which induced the legislature to give large premiums for detection. Can it afford cause for wonder that, under this shocking system, our criminals have been multiplied in the manner we have witnessed?

CHAPTER III.

MANNERS.

Imperfect Views in former Times concerning the Means proper for repressing Offenders—Drunkenness—Its prevalence in 1736—Means taken for its suppression—Failure of those Means—Quantity of Ardent Spirits consumed then compared with the present Time—Drunkenness not confined formerly to the Working Classes—General Coarseness of Conversation, and in Popular Writers—Anecdote related by Sir Walter Scott—State of Morals and Manners fifty Years ago, as stated in evidence before the House of Commons—Progressive Improvement occasioned by the general spread of Information—Increased Temperance not extended to Scotland—Evidence of Sheriff Alison—Infrequency of Prize-fighting compared with former Times—Greater refinement of the Public Press—General Improvement in personal Morality.

THE result of the examination of our criminal statistics, contained in the preceding chapter, is calculated to excite feelings at once of regret and of hope—of regret, that the science of government in this, one of its most important branches, has hitherto been so ill understood, or so ineffectually followed out, as to have allowed the fearful growth of criminality exhibited by parliamentary returns—of hope, that the means of arresting and in a great degree of correcting the evil having discovered themselves by reason of the classifications of offenders which of late years have been adopted, efforts will now be made to give full efficacy to those means. Heretofore the growing evil has been dealt with blindly, and in a spirit of empiricism—now, and hereafter, we may press forward in the work of reformation with a full comprehension of the disease, with confidence in the means of cure, and with some assurance of success. We, and those who preceded us, have formerly been content to make the too common mistake of attacking symptoms instead of seeking out and combating the disease at its source. The degree of ignorance upon this subject which has prevailed will hardly be credited some years hence, when, as may now be reasonably expected, the desired result shall be accomplished. Dr. Colquhoun, a most active and intelligent police magistrate, to whom society is much indebted for the fearless disclosures made by him, which awakened attention to the growing evil, had yet the most imperfect conception of the means to be used for arresting it. In the evidence given by him before the Select

Committee of the House of Commons on the Police of the Metropolis in 1816, we find this passage:—"On or about the years 1744 or 1745, when multitudes of men and women were rolling about the streets drunk in consequence of the number of gin-shops, the physicians were consulted upon it, and an Act was passed that no persons should be entitled to a spirit licence that could not previously produce an ale licence." We must suppose, from his approval of this expedient, that Dr. Colquhoun attributed to the existence of gin-shops the disposition to drunkenness then prevalent, instead of looking at them as the consequence of the prevailing low condition of morals. How this evil was to be remedied by obliging the publican to pay a few pounds additional for an ale licence, and to keep a few gallons of ale upon his premises for such as might choose to ask for it, does not appear; neither is it shown why physicians were consulted, since there could be no doubt of the injury to the bodily frame from habitual drunkenness, and there was no thought of curing the propensity by administering physic. The state of things as described by Dr. Colquhoun to exist in 1745, had not then newly appeared. Ample time had then been afforded for contemplating the evil, and for attempting its cure. The addiction of the people to intoxicating drinks had reached such a point in 1736 as to occasion continual debates in Parliament, and to call for remedies of a very stringent character. It was then the practice of some publicans to entice their customers with a notice painted on a board outside the house to this effect:—"You may here get drunk for a penny, dead drunk for twopence, and have clean straw for nothing." The legislators of that day, thinking that the cheapness of the liquor caused the abuse, proposed a duty of 20*s.* per gallon, and to prohibit the sale of spirituous liquors by retail, a measure far more likely to attain the end proposed than that of obliging the publican to provide himself with a supplemental licence; and yet it signally failed in its purpose. Coxe, in his 'Life of Walpole,' speaking of it, says, "The Act led to the usual proceedings of riot and violence; the clandestine sale of gin was continued in defiance of every restriction; the demand for penalties the offenders were unable to pay filled the prisons, and, by removing every restraint, plunged them into courses more audaciously criminal." In March, 1738, a proclamation was issued to enforce the Gin Act, to protect the officers of justice in their efforts to that end, and threatening offenders with punishment. Within less than two years from its passing, 12,000 people had been convicted under the Act within the Bills of Mortality, of whom 5000 had been sentenced to pay each a penalty of 100*l.*, and 3000 people had paid 10*l.* each to excuse their being sent to Bridewell house of correction.

These harsh proceedings failed entirely. It was given in evidence before a Committee of the House of Commons, in 1743, that the quan-

tity of spirituous liquors made for consumption in England and Wales, was—

In	1733	10,500,000 gallons.
	1734	13,500,000 „
	1740	15,250,000 „
	1741	17,000,000 „
	1742	19,000,000 „

These quantities were consumed by a population not exceeding six millions, giving $3\frac{1}{6}$ gallons for each individual in 1742. One century later, and we find a population increased to sixteen millions consuming 8,166,985 gallons in the year, or half a gallon per head, showing a diminished consumption of more than five-sixths. There were, in 1742, within the Bills of Mortality, more than 20,000 houses and shops in which gin was sold by retail.

Nor were those habits of drunkenness confined to the labouring classes. What would now be called drinking to excess was then so much the custom in every circle, that it was as uncommon for any party to separate while any member of it remained sober as it is now for any one in such party to degrade himself through intoxication. This habit, which is now happily banished from all decent society, had by no means disappeared at the beginning of the present century. The reformation was then only begun which we have lived to see nearly perfected; and who that personally witnessed the scenes of riot that fifty years ago were still of too common occurrence even among reputable people, and contrasts them with the quiet and rational enjoyment that attends our social meetings at the present day, but must acknowledge that this habit of temperance in the use of intoxicating liquors is one of the greatest, if indeed it be not the greatest, reformation that society has witnessed. In those days it rarely happened that men holding the rank and otherwise bearing the character of gentlemen, rose from the table of a dinner party in a condition to enter the society of females, and thus all were debarred from the sweetest hours of rational enjoyment which now spring from social intercourse.

It was the fitting concomitant of the habit of personal debasement, through drinking to excess, that the style of conversation at the convivial parties of gentlemen was then such as would not be tolerated in any decent society at present; nor is it to be wondered at that men who would designedly "put an enemy into their mouths to steal away their brains" should exhibit the coarseness of their minds in their habitual conversation. If we carry back our inquiries twenty years further, we may learn that coarseness of the same kind, although perhaps not in the same degree, was exhibited by educated females, and that respectable women, the mothers of families and the wives of respectable tradesmen, were accustomed to amuse their guests by singing songs that no reputable musicseller or bookseller would now admit among his wares.

Remarking upon the change of manners in this respect that has since been witnessed in this country, Sir Walter Scott relates the following curious anecdote as having happened to himself:—

"A grand-aunt of my own, Mrs. Keith of Ravenstone, who was a person of some condition, being a daughter of Sir John Swinton, of Swinton, lived with unabated vigour of intellect to a very advanced age. She was very fond of reading, and enjoyed it to the last of her long life. One day she asked me, when we happened to be alone together, whether I had ever seen Mrs. Behn's novels? I confessed the charge. Whether I could get her a sight of them? I said, with some hesitation, I believed I could, but that I did not think that she would like either the manners or the language, which approached too near that of Charles the Second's time to be quite proper reading. 'Nevertheless,' said the good old lady, 'I remember their being so much admired, and being so much interested in them myself, that I wish to look at them again.' To hear was to obey. So I sent Mrs. Aphra Behn, curiously sealed up, with 'private and confidential' on the packet, to my gay old grand-aunt. The next time I saw her afterwards she gave me back Aphra, properly wrapped up, with nearly these words—'Take back your bonny Mrs. Behn, and if you will take my advice put her in the fire, for I found it impossible to get through the very first novel. But is it not,' she said, 'a very odd thing that I, an old woman of eighty and upwards, sitting alone, feel myself ashamed to read a book which sixty years ago I have heard read aloud for the amusement of large circles, consisting of the first and most creditable society in London?' "*

The Report of the Select Committee of the House of Commons, appointed in 1835 to inquire into the state of the education of the people in England and Wales, contains an amount of information concerning the increased and increasing decency of deportment within the present age which is of the highest value. Among the many witnesses examined was Mr. Francis Place, who for more than half a century has been an attentive observer of the condition and conduct of the working people in London, and to a considerable extent throughout the kingdom generally. Scenes and events which he relates as being of common every-day occurrence when he was an apprentice, are such as would be unbearable now, and have wholly ceased. Speaking of the habits of tradesmen and masters, he says, "The conduct of such persons was exceedingly gross as compared with the same class at the present time. Decency was a very different thing from what it is now; their manners were such as scarcely to be credited. I remember, when a boy of ten years of age, being at a party of twenty, entertained at a respectable tradesman's, who kept a good house in the Strand, where songs were sung which cannot now be

* 'Lockhart's Life of Scott,' vol. v., pp. 136, 137.

more than generally described from their nastiness, such as no meeting of journeymen in London would allow to be sung in the presence of their families. There were then few rational employments at home; the men were seldom at home in the evening, except there were card-playing and drinking; they spent their time in a very useless and but too generally a mischievous manner. I made inquiries a few years ago, and found that between Temple-bar and Fleet-market there were many houses in each of which there were more books than all the tradesmen's houses in the street contained when I was a youth. The ballads sung about the streets, and the books openly sold, cannot be adequately described. I have given you in writing words of some common ballads which you would not think fit to have uttered in this committee. At that time the songs were of the most indecent kind; no one would mention them in any society now; they were publicly sung and sold in the streets and markets. Books were openly sold in shops of booksellers in leading streets which can only be procured clandestinely now. I have seen the Prayer-book, the Racing Calendar, and these books, bound alike, side by side in very respectable shop-windows in the leading streets. Between Blackfriars and Westminster-hall there were fourteen clubs under the name of cock-and-hen clubs. I attended several of them when I was an apprentice. There was one in the Savoy, where a girl used to sit at one end of the table and a boy at the other; I have seen the chairs placed upon the table; the amusements were smoking, drinking, swearing, and singing obscene songs; what else followed you may easily conclude. I do not believe there has been a club of the sort for many years past within the same space. There are a few of them still in London, but very few; they are held in very obscure places, and frequented by the very worst of the community. The places of public resort, the tea-gardens, were formerly as notorious as they were infamous. The Dog and Duck, for instance; I have been there when almost a mere boy, and seen the flashy women come out to take leave of the thieves at dusk, and wish them success. The Apollo Gardens was another of these infamous places; it was opened under the pretence of musical entertainments; and there was the Temple of Flora; it was a long gallery fitted up in a superb manner, and when lighted, was a very fascinating place; there were boxes where boys and girls and men and women assembled; there were also close or private boxes. Another of these places was the Bull-in-the-Pound, in Spa-fields, frequented by thieves and dissolute people. In Gray's-inn-lane was the Blue Lion, commonly called the Blue Cat; I have seen the landlord of this place come into the long room with a lump of silver in his hand, which he had melted for the thieves, and pay them for it. There was no disguise about it; it was done openly: there is no such place now. The amusements of the people were all of a gross nature. We hear much talk of

the desecration of the Sabbath, but it was much more desecrated formerly. At the time I am speaking of, there were scarcely any houses on the eastern side of Tottenham Court Road; there and in the Longfields were several large ponds; the amusements here were duck-hunting and badger-baiting; they would throw a cat into the water and set dogs at her, great cruelty was constantly practised, and the most abominable scenes used to take place. It is almost impossible for any person to believe the atrocities of low life at that time, which were not, as now, confined to the worst paid and most ignorant of the populace. I am not aware of any new vice having sprung up among the people; there has been a decrease of vice in every respect, and a great increase of decency and respectability."

The foregoing passages, which for the sake of brevity have been put into the narrative form, are faithfully extracted from the answers made by Mr. Place when under examination by the committee. The only liberty that has been taken is the suppression of some of the more revolting circumstances brought forward by Mr. Place in illustration of his opinions.

When asked, "To what do you principally attribute those improvements?" Mr. Place answered—"To information! you will find, as the working people get more information, they get better habits." He added, "Every class above another teaches that below it; the journeyman tradesman is above the common labourer, and manners descend from class to class." The whole of the evidence given by Mr. Place on this occasion is of the deepest interest to all who wish to study with the aim of remedying the moral evils of society by rational and therefore by practicable means.

The sobriety which among educated persons has taken place of the contrary habit has in a great degree been adopted by the labouring classes also. It is true there is still much of intoxication among us, and much of other vices and crimes to which habitual intoxication surely leads the way; scenes of depravity, however, no longer court the public gaze, but in a great degree have passed away. The Apollo Gardens, the Dog and Duck, and other places of popular resort in those days, to which those who remember them can now never refer but with disgust, exist no longer; they would no longer be tolerated among us. It might be expected that this improvement would exhibit itself in different degrees in various localities. Our seaports are still liable to the old reproach of drunken habits; and the reform has not as yet made any deep impression upon the working people of Scotland.* Mr. Alison, the sheriff of Lanarkshire, in his evidence given before the Committee on Combinations of Workmen so recently as 1838, speaking of the habit

* [redacted] has been already shown (page 556) how importantly the good work has been for- [redacted] Ireland, through the exertions of one earnest benefactor of his race.

of intemperance in Scotland, said,—"I know opium is used to a certain extent, but I think whiskey there supersedes everything. In short, I may mention one fact to the committee which will illustrate the extent to which the use of whiskey is carried: in London, the proportion of public-houses to other houses is as one to fifty-six; in Glasgow, it is as one to ten; every tenth house in Glasgow is a spirit-shop. I should say, as far as my statistical researches have gone, that the proportion of whiskey drunk in Glasgow is twice or thrice as much as in any similar population upon the face of the globe." Being asked whether the proportion of spirit-shops mentioned was greater than it was fifteen or twenty years ago, Mr. Alison stated that it was considerably increasing; that in 1824 every fourteenth house was a public-house, and that the proportions since and at different times ascertained, have been one in twelve, one in eleven, and (as already stated) in 1838, one in ten. Mr. Alison gives a deplorable account of the moral condition of the people of Glasgow. He says, "I think that in Glasgow there are 80,000 people (the whole population is 257,000) who have hardly any moral or religious education at all; they have hardly any education in worldly matters; and though they can most of them read and write, they are, practically speaking, uneducated." It would be indeed surprising if, under those circumstances, the population of Glasgow were to exhibit any but the lowest state of morals; and the various particulars given by Mr. Alison of their coarseness and brutality seem to follow as a necessary consequence from the neglect of which they are thus the victims.

It is at once a consequence of the comparative sobriety of the age, and a help to its continuance, that great numbers of houses have been opened for the sale of cups of coffee and tea at low prices. It is said that there are from 1600 to 1800 of these coffee-houses in the metropolis alone, and that they are established and rapidly increasing all over the country; about thirty years ago there were not above a dozen of those houses to be found in London, and in these the prices charged for the refreshment they afforded were such as to limit to a very few the number of their customers. Some interesting information concerning these establishments was given before the Committee of 1840, which was appointed to inquire concerning the operation of the several duties levied on imports, and popularly known as "the Import Duties Committee."

The charge made at these houses for a cup of excellent coffee, with sugar and milk, varies from one penny up to threepence. There are many houses where the lowest of these charges is made, and which are each frequented by 700 to 800 persons daily. One house in Sherrard-street, Haymarket, is mentioned where the charge is three halfpence, and the daily customers average from 1500 to 1600 persons of "all classes, from hackney coachmen and porters to the most respectable classes," including many foreigners. The house opens at half-past five

in the morning and closes at half-past ten at night. The temptation to frequent these houses is not confined to the coffee or tea that is provided, but the frequenters are furnished with a variety of newspapers and periodical publications. In the coffee-house just mentioned there are taken forty-three London daily papers (including several copies of the leading journals), seven country papers, six foreign papers, twenty-four monthly magazines, four quarterly reviews, and eleven weekly periodicals. The proprietor of another house stated to the committee that he had paid 400*l.* a year for newspapers, magazines, and binding. He said, "I have upon the average 400 to 450 persons that frequent my house daily; they are mostly lawyers' clerks and commercial men; some of them are managing clerks; and there are many solicitors, likewise highly respectable gentlemen, who take coffee in the middle of the day in preference to a more stimulating drink. I have often asked myself the question where all that number of persons could possibly have got their refreshments prior to opening my house. There were taverns in the neighbourhood, but no coffee-house, nor anything that afforded any accommodation of the nature I now give them; and I found that a place of business like mine was so sought for by the public, that shortly after I opened it I was obliged to increase my premises in every way I could; and at the present moment, besides a great number of newspapers every day, I am compelled to take in the highest class of periodicals. For instance, we have eight or nine quarterly publications, costing from four to six shillings each, and we are constantly asked for every new work that has come out. I find there is an increasing taste for a better class of reading. When I first went into business, many of my customers were content with the lower-priced periodicals; but I find, as time progresses, that the taste is improving, and they look out now for a better class of literature." Another of these parties stated:—"I believe we may trace the teetotal societies and those societies that advocate temperance for working men entirely to the establishment of coffee-houses, because a few years ago it used to be almost a matter of ridicule amongst working men to drink coffee; now they are held up to emulate each other. I believe that not one-third of my customers ever go into a public-house at all. I have never heard an indecent expression, and, with two exceptions, have never seen a drunken man in my house."

In some of these coffee-houses chops are cooked, and cold meat and ham may be had at a moderate charge, but not any intoxicating drink is to be bought.

The improvement visible in the habits of the working people of England, as respects intoxication, is accompanied, as might be expected, by an abatement of coarseness in their general deportment, and by a weaning from some of the pursuits which, having been part of the

favourite pastimes of their and our immediate predecessors, are now looked upon as evidences of a brutal temper. The practice of prize-fighting, if it have not ceased, is certainly most importantly diminished in frequency. A great many years have not elapsed since in every newspaper was to be seen a circumstantial account of those gladiatorial displays, with all their disgusting details, and now there is not a respectable daily or weekly journal that will prostitute its columns by the insertion. This is in itself a proof of altered manners on the part of readers, *i. e.*, of society at large: but the evidence of this fact is strikingly illustrated by the following paragraph, which appeared on the 28th of February, 1838, in the 'Morning Advertiser,' a very well-conducted and respectable London journal, which circulates principally mong publicans, and is in fact the property of a part of that body:—

"We beg to deny the truth of a paragraph inserted in 'Bell's Life in London' on Sunday last, to the effect that a deposit of 2*l.* aside is to be made at Harry England's, Old Kent-road, on Thursday next, for a match between Delhunt and Mortlock. The paragraph is an utter fabrication. Mr. England is a most respectable man, and the false charge, implicating him in so disreputable a transaction without his sanction, is an injury as well as a scandalous piece of impertinence. It is monstrous that the feelings of honourable men are to be hurt by such unwarrantable statements."

We here see the landlord of a public-house indignantly denying not only any participation in, but any countenance of, an act as disreputable, which only a few years before would have been openly abetted, not by publicans only, but by men of the highest rank and station in the kingdom.

It is in itself a proof, of no slight significance, as to the general refinement of manners, that in a work of this nature there would be found an impropriety in describing scenes that were of every-day occurrence formerly, and without which description it is yet impossible adequately to measure the advance that has been made. Enough has been said, however, to bear out the assertion, that as regards personal morals there is at least a greater amount of decency than formerly—that profligacy does not stalk abroad in the face of day as shamelessly as it was wont to do, and that brutality has, in a very great degree, ceased to obtain the countenance of the educated classes. There is, it is true, much yet to be done in this direction, while in the higher branches of morals we have almost everything to learn. With the self-denying doctrines of Christianity upon our lips, we present a practical denial of them in our lives, which are given up in a greater degree than ever to self-aggrandizement, in the pursuit of which we have seemingly lost all proper appreciation of our duties as citizens, until patriotism has become a byword and a scoff, and national honour a thing of small account.

CHAPTER IV.

EDUCATION.

Neglect of Public Provision for Education in England—Consequent Social Evils—Duty of Government to provide for Instructing the people; enforced by Exertions of Individuals—Remedy for Inconveniences of increasing Population—Absence of Crime in well-instructed Communities of Nova Scotia and Iceland—Joseph Lancaster, his early Difficulties and subsequent Success—His Exertions and Sacrifices—Committee of Council for Education—Opposition to the Scheme in both Houses of Parliament—Number of Children without Instruction—Recent Progress of Public Opinion on the Subject of National Education—Educational Statistics—Imperfect manner in which the Instruction of the Poor has been conducted—Statistical Societies of Manchester and London—Normal School at Battersea—Proportion of Marriage Registers signed with Crosses in different parts of England and Wales—Education in Scotland, 1825 and 1837—National Schools of Ireland established in 1831—Nature of opposition offered to the System—Former Plans; their Insufficiency—Charter Schools—Kildare Street Society—Children taught in National Schools of Ireland, 1834 to 1849—Social Benefits of the System to Ireland.

THIS United Kingdom, which boasts itself to be at the head of civilization, has been among the last of European nations to make any public provision for the instruction of the people. This neglect is all the more extraordinary from the fact, that of all civilized countries this is the one in which ignorance on the part of the people brings with it the greatest amount of danger. From their number, and the manner in which they are brought together in our large manufacturing and trading towns, the labouring classes have become a most important power for good or for evil, and exercise, without its being acknowledged, a very powerful influence over the deliberations of the Senate and the acts of the Government. Their situation is besides widely different from that of the labouring classes in every other country, where the great majority depend upon agricultural labour for their support, and are but little liable under any circumstances to be thrown out of employment. In England, on the contrary, as already shown,* the great and rapid increase in the population is all of it thrown for the means of earning subsistence upon pursuits other than agricultural. A change of fashion, or—what is to the full as likely to occur where the legislature takes upon itself to interfere on all occasions by "protections" and restrictions with the course of industry—a change of policy, may in a moment, and without warning,

* Page 54.

throw tens of thousands out of employment, while, as we have sometimes witnessed, a succession of deficient harvests is sure to bring upon the whole class the severest privations.

How necessary then it is that these masses, so greatly, so increasingly influential, should not be suffered to remain in ignorance of their true interests! They are not idiots that they cannot be led to see wherein those true interests lie, nor to admit that they consist in upholding the laws and respecting the institutions of their country. Neither are they knaves, who, to secure a passing advantage, would wantonly invade the rights of their richer fellow-citizens. But they are ignorant; and in this condition all manner of fallacies may be made to pass with them for truth. To what but to ignorance are we to ascribe the hostility of our operative manufacturers to machinery, and their lawless crusades against it? How, unless means for teaching them are adopted, can they be expected to see the ultimate consequences to them of a machine the introduction of which into use has the present effect of throwing some among them out of their accustomed employment?

The great bulk of the people, they whose sole dependence for their daily bread must be upon their daily toil, are most of all interested in the maintenance of order, under which alone they can have any assurance of demand for their labour. This truth, which they should be taught to recognise, does not lie upon the surface; and the unlearned may well be excused for not embracing it when they see men who have had the advantages of instruction denied to themselves, advocating doctrines irreconcileable with it. It is a fact, recognised by all who have investigated the subject, and demonstrable to all, that the introduction of machinery for simplifying manufacturing processes has had the effect not alone of increasing the comforts of the great body—the consumers—but also of multiplying manifold the demand for labour even in the particular branches to which the machinery is applied: and yet how common is it to hear men of educated minds, but who have not allowed themselves to consider this class of facts, inveighing against the introduction of a new machine as an interference with the rights of labour! From such a doctrine, as well as from others equally false and equally pernicious, there are no means of preserving the people but by educating them.

It is evident that the kind of knowledge which will preserve from such fallacies will not be the result of instruction in the mere elements of learning; and this is rendered equally clear by the fact, that men whose education has been carried far beyond the elementary degree have failed to acquire right views concerning points which the general safety requires should meet the *practical* assent of all; but this presents no difficulty. The educated man fails to recognise the truth because he is but partially educated, and has been left in ignorance with regard to

that branch of knowledge which the working men, if educated at all, would be sure to make their own, since it intimately concerns their daily comforts, and is essential to the welfare of their families. That they would do so we have the evidence of experience to teach us; for have not all their strikes and risings had for their object the attainment of something which in their unenlightened reasoning they have conceived to be their right—mistakenly, no doubt—but proving thereby how deep is the interest they would feel in securing the general welfare, from the moment they should come to know how completely their own true interests are involved in it?

It would appear to be the duty of every Government to see that its subjects are taught their duties as men and as citizens, and thus to provide for the security of all. Lessons to this end have indeed been taught by the Government of England, but to whom have they been imparted, and by what agency have they been enforced? To be adopted as a scholar, a man must—at least up to a comparatively recent period—have qualified himself to appear as a criminal at the bar of justice, and his chief schoolmaster would have been—the hangman! If one tithe of the expense that has been incurred to so little purpose during the present century in punishing criminals had been employed for preventing crime by means of education, what a different country would England have been to that which our criminal records show it to have been!

Thank Heaven! this truth at length is making its way to the convictions of our rulers. The principle is recognised that the people must be instructed. There is no longer any party found to question this principle, or to oppose its practical application. Differences there are and will be as to the best mode of carrying it out, but those differences of opinion are not allowed to stay the progress of education, which will, which must, go forward, and perhaps the more rapidly by reason of the discussions that arise out of those very differences.

We are as yet, however, only in the infancy of this right course. That we have entered upon it, is due to the zealous and enlightened exertions of men who toiled amidst difficulties that seemed to multiply as they proceeded, but who rose from their successive defeats with a determination to succeed, against which no opposition could always prevail. In these struggles to advance the best interests of our fellow-creatures, circumstances are sometimes witnessed which compensate for past defeats, and offer encouragement to future philanthropists. One of these encouragements is known to have well repaid the long-continued and long-frustrated efforts for the recognition by Parliament of the duty of providing for the instruction of the people, made by the amiable and accomplished late member for Waterford. No man had laboured more [illegible]ously, more intelligently, more benevolently, but, to all appearance,

more hopelessly, to this end than Mr. Wyse. It was with difficulty even that once during each succeeding session of Parliament he could procure the attendance of a sufficient number of members to make "a house" for the discussion; but at length his efforts were crowned with success, and it was among his earliest official acts, after taking his seat at the Treasury Board, to affix his signature to the warrant for 30,000*l.* which had been wrung from the House of Commons as the commencement of a scheme—imperfect and inadequate, it is true, to the occasion—for a national system of education.

The circumstance that has been cited of the rapid multiplication of our numbers in the working class, whose only theatres for employment must be the seats of manufactures, where they are consequently drawn together in masses, has excited alarm of no ordinary kind, not among the unthinking only, but on the part of individuals also to whom we have been accustomed to look for instruction in matters relating to the well-ordering and progress of society. Whence does this alarm proceed; on what is it founded, but on the ignorance of those on whose account it arises? It is felt and acknowledged as an impossibility to meet the difficulty by means of any direct legislative interference. To impose any restraints upon industry which should check the continued progress of the population, would be to insure the immediate occurrence of the very mischief that is dreaded. The true path of safety will be found in educating the people—in teaching them to discriminate between evils referable to the imperfection of human institutions, and therefore remediable, and such as arise in the order of Providence. "Demagogues, and the workshop agitators so frequently met with in the manufacturing districts," and who now "never fail to take advantage of the excitement produced by the occurrence of distress to instil their poisonous nostrums into the public mind, to vilify the institutions of the country, and to represent the privations of the workpeople, which in the vast majority of cases spring from accidental and uncontrollable causes, as the necessary consequences of a defective system of domestic economy, having regard alone to the interests of the higher classes"*—such mischief-makers would no longer exist, for they would find no dupes upon whom to practise. Under the condition of general enlightenment here supposed, the fallacies which have been so long allowed to fetter the industry of the nation would disappear like snow before the sun; and if evils should then arise to disturb the general prosperity, the last thing that would enter into the minds of the sufferers would be to proceed to measures of violence, the only issue of which they would then know must be to increase in degree and to prolong in duration the amount of their trials and privations.

* 'Principles of Political Economy,' by J. R. M'Culloch, Esq., edition, 1843.

Whence arises this fear—this childish fear—of the increase of our numbers?—childish, because it exists without regard to the lessons of experience. What evidence is there in our present condition to justify the complaint of "surplus population" that did not exist in as great or even in a greater degree of force when our numbers had not reached one-half their present amount? Why, then, shall we not go forward to double, and again to double, our population in safety and even to advantage, if, instead of rearing millions of human *clods*, whose lives are passed in consuming the scanty supplies which is all that their lack of intelligence enables them to produce, the universal people shall have their minds cultivated to a degree that will enable each to add his proportion to the general store?

The progress of our population in Great Britain has gone forward with a continually-accelerated speed:—

Between	1801	and	1811	the increase was 1,492,255
„	1811	„	1821	„ 2,108,028
„	1821	„	1831	„ 2,189,970
„	1831	„	1841	„ 2,278,381

Of these 8,068,634 additional beings, the proportionate numbers in the different periods were—

1801 to 1811	18·50 per cent.
1811 „ 1821	26·12 „
1821 „ 1831	27·14 „
1831 „ 1841	28·24 „
	100·00

If the complaint of "surplus population" had any foundation, would it not have been in the later years of this series that the evils of such a condition would chiefly have made themselves apparent?—and yet we may triumphantly point to the evidences that have attended our researches, as recorded in this volume, to show that the material progress of the country has never before proceeded with a speed equal to that which it has made during the past five-and-twenty years. The plain common sense of our forefathers led them to consider every increase of their numbers as an addition made to the power and wealth of the country; and it is in all probability our artificial system of so-called protections, which has tended in some degree to paralyze our ingenuity, and to fetter our industry, that in modern times has suggested the contrary belief.

Under the circumstances that have attended our course during the present century, the increase of population among the instructed classes has certainly gone forward in at least as great a proportion as the increase among the other classes; yet, except in rare instances, referable to want of individual prudence, we do not see that any fall back into the ranks of pauperism, while, on the other hand, thousands have advanced

in worldly rank, themselves or their immediate descendants occupying in many cases the very highest stations in the land. What is it but education that has imparted to them this power of sustaining themselves and their families in the struggle amid so many competitors? It is true we hear a constant cry about the difficulty of obtaining suitable employment on the part of educated youths; but the same cry has been raised during each one of the past forty years, if even the complaint be not of much older origin, and it is not more true now than it was when it first arose. If, then, the educated among us have found room for their exertions without sinking in the social scale, it must have been through their having created employments for themselves, and in a considerable degree for others also, by means of their superior intelligence; and when the great body of the people shall be placed in the same favourable circumstances, why should not the individual members of the community at large be as successful each in providing for his own wants in the station which he occupies?—and if this be reasonable with reference to our present numbers, why should it be otherwise, although these numbers were doubled? The only obstacle that could arise would be found in the absolute insufficiency of food for the sustenance of the greater number, the perfect remedy for which difficulty has at length been recognised and adopted.

The view here offered of the social benefits to be derived by the nation at large from the general spread of intelligence is no new doctrine. It was well said by the present Archbishop of Canterbury (Dr. Sumner), in his 'Records of the Creation,'—"Of all obstacles to improvement, ignorance is the most formidable, because the only true secret of assisting the poor is to make them agents in bettering their own condition, and to supply them, not with a temporary stimulus, but with a permanent energy. As fast as the standard of intelligence is raised, the poor become more and more able to co-operate in any plan proposed for their advantage, and more likely to listen to any reasonable suggestion, and more able to understand, and therefore more willing to pursue it. Hence it follows, that when gross ignorance is once removed, and right principles are introduced, a great advantage has been already gained against squalid poverty. Many avenues to an improved condition are opened to one whose faculties are enlarged and exercised; he sees his own interest more clearly, he pursues it more steadily, and he does not study immediate gratification at the expense of bitter and late repentance, or mortgage the labour of his future life without an adequate return. Indigence, therefore, will rarely be found in company with good education."*

It may be said that these views, however reasonable they may appear,

* Fourth edition, vol. ii. page 338.

are still only speculations, formed in the closet, and wanting the sanction of experience to stamp them with authority. Happily we are not without this sanction also. The early settlers of the province of Nova Scotia were so fully impressed with the necessity of imparting instruction to the people, that ample provision was made by them, and has been continued by their descendants to the present day, for the support of schools, so that not a child is brought up in the province without receiving a considerable amount of instruction combined with moral training. The result has been most gratifying. When conversing with a gentleman from Halifax, a barrister and member of the provincial parliament, and a most intelligent man,* concerning the condition in various respects of the Nova Scotian population, a question was put to him on the state of crime within the province, to which he gave this striking answer,—"Crime! we have no crime." When urged to explain how far this reply was to be received in a literal sense, he added, —"I do not mean that people never quarrel in Nova Scotia; brawls do sometimes occur, although not very frequently; but as to crime, understanding by the term offences for which men are brought to the bar of justice in England, I repeat that it does not exist." The cause of this truly enviable state of society was made apparent when he described the means employed for imparting universal education, and added, as a consequence of the high degree of intelligence thereby developed, that every person could find employment, and could support himself and his family upon the fruits of his industry.

Nor do these facts rest upon individual or private testimony only. The return made to the Colonial Office in London of the condition in various respects of the province fully bears out the above description. In that portion of the volume (known officially as "the blue book") in which forms are given for returns under the head of gaols and prisoners, all that appears is the following note:—"No account is kept under the heads of this return, which are wholly inapplicable to the gaols in Nova Scotia, where crimes are of rare occurrence, and imprisonment for debt is infrequent. There is at least one gaol in each county, under the jurisdiction of the superior court, superintended by the high sheriff or his gaoler, but there are not any officers of prisons appointed."

The population of Nova Scotia, according to a census taken in 1838, amounted to 178,237 souls. There were in 1841, in public schools, chiefly in Halifax, 1902 scholars; in colleges, 138; but in addition to these there were "more than 600 common schools, and thirty combined common and grammar schools, at which upwards of 20,000 children were instructed. These schools are supported partly by grants of the legislature, and partly by the subscriptions of the inhabitants. The

* Mr. G. R. Young, senior Attorney-General of the province.

total amount contributed by the province in 1841 for promoting education exceeded 6000*l.* The revenues of the province in that year amounted to 93,882*l.* 18*s.* 2*d.*

If the contribution of the Imperial Parliament for the promotion of education in Great Britain were on the same scale of liberality as that adopted in Nova Scotia, taken with reference to population, the yearly vote would amount to 624,000*l.*; but if made proportionally to the revenues of the two communities, it would amount to more than five times that sum, and even then would not absorb one-half of the revenue derived in Great Britain from the consumption of ardent spirits.

In a work of great authority, published several years ago, we find the following passage, corroborative of the facts and their consequences here brought forward:—"It is a matter of doubt whether more general and useful knowledge among all grades of the population can be discovered in any country than will be found to prevail in this province (Nova Scotia). Many of those born and educated in it have distinguished themselves not only at home but in different parts of the world, and the natives generally possess a ready power of apprehension, a remarkably distinct knowledge of the general affairs of life, and the talent of adapting themselves to the circumstances of such situations as chance, direction, or necessity may place them in."*

In the island of Iceland there is no such thing to be found as a man or woman—not decidedly deficient in mental capacity—who cannot read and write well, while the greater part of all classes of the inhabitants have mastered several of the higher branches of education, including a knowledge of modern languages, and an acquaintance with classical literature.

Placed on the verge of the arctic circle, the Icelanders are subjected to the hardships of a long and rigorous winter, during which there are but few hours of the day in which it is possible for them to pursue outdoor occupations. These apparently unfavourable circumstances they have with the highest degree of wisdom rendered productive of the choicest of human blessings—the enlightenment of their minds and the raising of their moral characters. Some part of the long evening is employed in teaching the children of the family; and so universal is this practice that in the whole island there is but one school, which is exclusively used for the highest branches of professional education. After this part of the family duty has been performed, the whole household is assembled—servants and all—and some book is read aloud, each person present taking his turn in reading. After this there usually follows a discussion relating to what has been read, and in which all unreservedly join, and the evening is not suffered to close without engaging in religious exercises.

* 'British America,' by John M'Gregor, Esq., vol. i. page 405. Second edition.

Every account of these people that has been published agrees in describing them as gentle and peaceable in their dispositions, sober, moral, and religious in their habits. Crimes among them are hardly known. The house of correction at Reickiavich, the capital of the island, after having stood empty for years, was at length converted into a residence for the governor, by whom it has since been occupied. The island is subject to the penal code of Denmark, which awards the penalty of death to murder and some other heinous offences. It is said that only three or four capital convictions have occurred during the last two centuries; the last of these happened some years before the visit of Sir G. Mackenzie and Dr. Holland in 1810; it was of a peasant for the murder of his wife, and on that occasion it was not possible to find any one on the island who could be induced to perform the office of executioner, so that it became necessary to send the man to Norway that the sentence might be carried into effect. It is worthy of remark, that from the first settlement of the island by a Norwegian colony in the ninth century, to the acknowledgment of the King of Norway, and during the six centuries which have since elapsed, no armed force has ever been raised on or introduced into the island.

It would be difficult to conceive, if we had not the facts before us, that any nation calling itself civilized, and boasting itself to walk in the light of Christianity, could have so totally neglected the all-important subject of education, as did the rulers of England up to the beginning of the present century. There was then no provision for school-teaching besides that afforded by parochial charity-schools, in which the little that was taught had nothing in it that was useful, and the then recent institution of Sunday-schools, which chiefly owe their existence to Mr. Raikes, of Gloucester, and in which the instruction given was necessarily confined in its scope and limited in its amount. Besides, even the Sunday-school system was then far from being generally adopted.

It was in 1798 that Joseph Lancaster began his scheme of active benevolence upon a very humble plan, and with very limited means. To use his own words,—"The undertaking was begun under the hospitable roof of an affectionate parent; my father gave the school-room rent free, and after fitting up the forms and desks myself, I had the pleasure, before I was eighteen, of having near ninety children under instruction, many of whom I educated free of expense." The season of scarcity that occurred at this time added to the number of the scholars whose parents were unable to spare the price of their children's schooling; and some of Lancaster's private friends coming to his assistance, the school came more and more to take the character of a free institution, until in 1804, "the school doors were thrown open for all that would send their children and have them educated freely." The economical plans and arrangements adopted in the school brought down

the expense to three shillings for each scholar. The subscriptions received were devoted to the erection of the necessary buildings, and the remaining expenses, including the simple wants of Joseph Lancaster himself, were defrayed from the profits of his publications, many thousands of which were yearly taken by the public.

Among Joseph Lancaster's earliest patrons were the Duke of Bedford and Lord Somerville; and in 1805 the King, and several branches of the Royal Family, especially the noble-minded father of our gracious Queen, gave the sanction of their names and the assistance of their subscriptions for carrying his plans more widely into effect. This powerful patronage did not suffice, however, to keep the author of these plans out of pecuniary difficulties; so little at that time did the public feeling respond to the benevolent wishes of the monarch; so indifferent was the public mind to the cause to which this zealous apostle of education had devoted himself. The difficulties against which he had then to struggle are thus simply described by himself in a report drawn up in 1811:—"I was not insensible of the heavy responsibility, yet determined to succeed or sink in the attempt, committing myself to the protection of the God of friendless youth; and, anticipating final success, I persevered. Had I not done so, the progress of the work would have been checked for several years, and the time of part of one generation would have passed away, they remaining in ignorance,—perhaps the clouds of mental night enveloping their minds to the end of their lives. The imposition of some tradesmen; the deceit of a personal friend; the warm professions and cold support of one professing patron, whose friendship proved to consist only in smiles, but who left me to bear the expense of educating all the children of his poor tenantry; all heightened the expense and threatened the concern with ruin. At this juncture (1808) I providentially received the zealous support of my friend Joseph Fox, who became attached to me from a powerful conviction of the merit of my system of education. From this time the debts of the institution were put into a state of liquidation, to the great surprise and astonishment of some who were expecting a contrary event."

The pecuniary embarrassments which had so nearly cut short his career of usefulness arose from the insufficiency of the subscriptions in aid of buildings, and which amounted only to 624*l.*, while the cost of the premises erected exceeded 3500*l.* The yearly subscriptions up to the time here mentioned never exceeded 600*l.*, while the necessary expenses of the school were double that sum. To relieve Mr. Lancaster from pecuniary difficulty, and to enable him still to devote his energies to the furtherance of his plans, five men, embued with the spirit of philanthropy in no ordinary degree, took upon themselves the office of trustees, and came under advances to the following amounts:—

Mr. Joseph Fox	£1,895
Mr. William Allen	1,232
Mr. Joseph Foster	1,218
Mr. William Corston	534
John Jackson, Esq., M.P.	522
	£5,401

The following extract from the minutes of the trustees, dated 28th March, 1811, shows the extent to which Mr. Lancaster's exertions had then been successful, and the amount of personal effort and sacrifice by which that success had been attained. No word of commendation is needed to do honour to the man himself, nor to the friends through whose disinterested philanthropy his success was rendered possible:—

"The trustees examined the vouchers produced by Joseph Lancaster relative to the expenditure which had taken place prior to the formation of the committee in 1808, and have the satisfaction to find that they are perfectly correct, and most satisfactorily account for the said expenditure; and they find, that during the time that they have had the care of his affairs, he has expended above 1000*l.*, the produce of his lectures, in travelling and preparing for the same; that he has maintained himself during this period by the profits of his publications and printing office; and in having educated above 6000 children free of expense; at the lowest rate of payment the sum of 7500*l.* has been given to the education of the poor."

Many years had elapsed after they thus had taken upon themselves the pecuniary burthens of the undertaking before the contributions of the public relieved the trustees from the load, themselves being among the most liberal contributors; but all dread of failure through insufficiency of means was at once dissipated by their management, under which the British and Foreign School Society has been the chief means to which is owing all that has since been done towards the education of the poorer classes of England.

It is not intended, by this statement, to give any opinion as to the value of the particular method of instruction adopted by Mr. Lancaster, nor to enter upon the question whether he or the late Dr. Bell is entitled to the merit of having been its inventor, but simply to narrate the steps whereby the public mind in this country has been directed in this all-important matter; steps which, without question or controversy, have resulted from the self-sacrifices of a man of humble birth, without fortune or powerful connexions, and whose sole reliance for success was, for years, his own indomitable spirit.

It is only by comparing the actual condition of England upon this subject with the deplorable state of darkness in which it was when Joseph Lancaster began his labours, that we can contemplate the progress hitherto made with any degree of satisfaction. Only a very few

years have passed since every effort that could be made by those who were themselves awakened to the necessity of establishing a system of national education appeared to be hopelessly employed. It was so recently as February, 1839, that the Government first adopted the subject of education as one of the objects that called for its interference, and constituted a Board of Education, consisting of five privy councillors, over whom the President of the Council was to preside. To this board was confided the distribution of such a sum as should be voted by Parliament for the promotion of education, and it was especially charged with the formation of normal schools. The sum proposed to be put at the disposal of this board in that year was 30,000*l.*, and in the month of June a motion to that effect was brought forward and carried, after a debate of three days, by a majority of 275 to 273, the latter number having voted in favour of an Address to the Queen, by way of "amendment," praying Her Majesty to revoke the Order in Council by which the Board of Education had been appointed. On the 5th of the following month a similar hostile Address was moved by a learned prelate in the House of Lords, and carried by a majority of 229 to 118 against the Government, which had the firmness, nevertheless, to persist in its plan.

That the objections then taken to this moderate scheme of the Government have since been found chimerical we have the best possible proof in the fact that it has been cordially adopted by the former opponents of that Government, and that every vestige of that opposition has disappeared.

It was shown by returns obtained from the workhouses of 478 unions, that at Midsummer, 1838, they contained 42,767 children under 16 years of age; and if this is a true proportion for the whole country, there must have been at that time in the 600 unions into which England and Wales were to be divided 53,682 pauper children. Under the old system of neglect those children would have grown up without having been impressed with any idea of moral responsibility, and without being provided with means much beyond those possessed by the brute creation for procuring an honest livelihood. Should it then occasion surprise that the ranks of crime have, in years past, received so many recruits, and have we any right to complain of this consequence of our own neglect?

The Government plans are still perhaps too recent, and, it must be added, too imperfect, to exhibit any very striking result; but with a knowledge of the enlightened zeal which is allowed to carry out the intentions of the legislature, it is not too much to hope that enough of good will soon be made apparent to show the desirableness of extending those plans, so that we shall soon cease to be the lowest among the Protestant kingdoms of Europe as respects the performance of our duty in promoting the education of the people.

It is but too probable that, in even the little it has done, the Government has placed itself, where indeed it should mostly be found, in advance of the general opinion. In a report made to the Poor Law Commissioners by Mr. Edward Twisleton, one of their Assistant Commissioners, bearing the date of April, 1840, the following passage occurs:—"It is impossible to shut one's eyes to the fact, that a certain portion of the upper and middle classes harbour a rooted distrust of any plan for the education of the poor. In discharge of my ordinary duties I have often had an opportunity of seeing this feeling manifested in an undisguised form. In the rural unions of this district (Norfolk), it fortunately happens that religious dissensions are almost unknown, and religious scruples have only, on very rare occasions, been the cause or the pretext for throwing impediments in the way of education. Hence, the chaplains, in the majority of the unions, give their valuable assistance in the improvement of the schools,—a fact which I take the greater pleasure in acknowledging, inasmuch, as in some unions they have almost supplied the place of a good schoolmaster; and it has only been in two instances that the slightest opposition has been experienced from that quarter. But amongst many small farmers, and some of the gentry, unwillingness to educate the poor is openly defended by argument; and a merchant of a seaport town gravely assured me, not long ago, that an agricultural labourer was very little above a brute, and that to educate him would merely have the effect of rendering him dissatisfied with his situation of life."

The feeling thus described is fast giving place to more enlightened and benevolent views. The evils anticipated from the instruction of the poor have not been experienced. It is seen that the mind can be cultivated without developing the disposition to mischief, or engendering any irrational feelings of dissatisfaction with their lot; while, on the contrary, instruction, when accompanied with moral training, is felt to exercise a powerful influence in restraining from evil. When Lancaster began his labours, it was a common remark, that if he succeeded in his object, we might seek in vain for servants who would clean our shoes, or attend upon our horses. This irrational opinion, which was founded on the presumption that men performed their duties better for being kept in ignorance regarding them, is but seldom heard, now that we have proofs of the greater willingness which an instructed person brings to the performance of his labour, and of the greater ability with which he is enabled to acquit himself.

We have not any accurate statements of the amount and progress of education in this country. An attempt was made in 1833, by the late lamented Earl of Kerry, to supply this deficiency, but the result of the inquiry then made was very unsatisfactory, so that it has been looked on as a failure. In one respect, however, the returns then made

have been productive of good, since by their very incompleteness they have stimulated private parties to prosecute inquiries in that direction, and have thus drawn public attention to the subject in a greater degree than might otherwise have been experienced. It was the feeling that justice was not done in those returns to efforts made by the friends of education among the manufacturers of Lancashire, that incited the Statistical Society of Manchester to set on foot the extensive series of inquiries which, with their results, they subsequently gave to the public;* and it was mainly owing to the publication of these results that the Statistical Society of London undertook similar investigations in various parts of the metropolis. The reports of those societies have had an acknowledged and a powerful influence on the deliberations of Parliament, by laying bare the moral deformity of the land, and pointing out a remedy.

Having thus expressed a warning against receiving these parliamentary returns as accurate records, we are forced to use them as the only data extant on the subject having reference to former years.

It appeared from returns thus made to the House of Commons, pursuant to the Address to the Crown, moved by Lord Kerry, in May, 1833, showing the number and description of schools, and the number of scholars at that time taught therein, in each town, parish, chapelry, or extra-parochial place in England and Wales, and indicating the increase that had occurred since 1818, that in the last-named year there were in England and Wales 19,326 infant and daily schools, with 605,704 scholars, and 5543 Sunday-schools, with 425,493 scholars. If these latter were in every case distinct from, and additional to, the scholars in infant and daily schools, the whole number receiving instruction in schools of all kinds in England and Wales in 1818 was 1,031,197. The population of that part of the kingdom was then (by computation) 11,846,057, and the ascertained proportion living between five and fifteen years old amounted to 2,843,053. If, making no allowance for the duplicate entries of scholars in Sunday and daily schools, nor for the children in infant schools under five years of age, we assume that their numbers conjointly would be equal to those of young persons receiving instruction under the paternal roof, it would appear that nine-fourteenths of the children in England and Wales were, in 1818, without any means of instruction. The returns for 1833 were less unfavourable. The number of children then given, as being under daily instruction,

* The omissions in the parliamentary returns, as stated in the reports of the Statistical Society of Manchester, were:—

	Scholars.
In the three townships of Manchester, Chorlton, and Hulme	10,347
In the borough of Bury	861
In the borough of Liverpool	15,500

or about one-third of the numbers ascertained by the society.

was 1,276,947; and the scholars in Sunday schools are stated to have been 1,548,890—together 2,825,837. In that year (1833) the number of persons betwen five and fifteen years old was 3,432,023, so that the proportion then left wholly uninstructed was not quite one-third of what it had been in 1818. But *it is known* that in 1833 duplicate entries were made of Sunday scholars, who also attended day-schools, to the amount of 152,195 children, and there is reason to *believe* that the number actually twice reckoned was much greater than was ascertained; besides which the proportionate number of infant schools, and therefore of scholars under five years of age, was much greater in 1833 than it had been fifteen years before, which facts must be taken in diminution of the improvement indicated by the returns.

It must be evident that when we shall have procured a correct statement of the number of schools, and of children attending them, we shall possess only a part of the information necessary to determine the condition or progress of the people in regard to their education. The reports of the Statistical Societies of Manchester and London have shown how unworthy of the name of education is the result of what is attempted in the majority of schools frequented by children of the working classes, and which are frequently kept by persons "whose only qualification for this employment seems to be their unfitness for every other."

A lamentable proof of the correctness of this remark is offered in the following extract from the report for 1839, of the chaplain of the Juvenile Prison at Parkhurst:—"One point has forcibly struck my attention, and that is, the comparatively large amount of acquirement in the mechanical elements of instruction (the art of reading and repetition from memory) contrasted with the lamentably *small* degree of actual knowledge possessed, either of moral duty or religious principle. This appears mainly to have arisen from the meaning of the words read or sounds repeated having rarely been made the subjects of inquiry or reflection. The following digest will in some degree illustrate this position. Your Lordship will perceive that, although fifty-eight prisoners can in some degree read, eighty-three repeat some or all of the church catechism, and forty-three possess some knowledge of Holy Scripture, only twenty-nine (exactly half the number of readers) can give even a *little* account of the meaning of words read, or sounds in use; and of these it appears very often to be the strength of the intellect exercised *at the moment*, and not the result of *prior* reflection, that leads them to the meaning of a word.

"Another feature of the moral condition of the Parkhurst prisoners cannot but arrest the attention strongly, and that is, the very large proportion that have received instruction for a considerable period of time in the various schools with which our country abounds. A digest

of this portion of the general table will show, that out of 102 lads, 94 have attended schools; 69 of whom have been *day* scholars for terms longer than a year, eight only having never been at school.

"Read tolerably	20	
Read indifferently	38	
		— 58
Read scarcely at all		14
Read not at all		30
Total		102
Of those there attended school from 8 to 12 years		2
" " 5 " 8 "		5
" " 3 " 5 "		21
" " 1 " 3 "		44
" " under 1 year		22
Never at school		8
Total		102"

This result will not in any degree surprise those persons who have examined the reports of the Statistical Societies of London and Manchester, and who have thus become acquainted with the insufficient acquirements of a large proportion of persons who take upon themselves the task of instruction.

The greatest want, now that the public mind is in a measure aroused to exertion in this direction, is felt to be that of qualified persons as teachers. This is a want which it must be the work of years effectually to supply, if even the establishing of normal schools were already accomplished upon an adequate foundation. Imperfect as our machinery for education now is in this essential particular, we cannot reasonably hope to derive from the formation of schools the same amount of advantage as would be experienced if a sufficient number of qualified teachers were in existence, and hence some over-sanguine friends of education may encounter disappointment. "As is the teacher, so is the school," is an axiom fully recognised in countries where the want of which we have now to complain has been made to disappear through a more timely attention on the part of their governments to this essential requisite. The efforts of the Committee of Managers of the British and Foreign School Society have long been directed to this object, and institutions for training teachers, both male and female, are now also in active operation under the managers of the National Society. Grants of money for this purpose have been made by Parliament to both these institutions; but the utmost that they can effect will bear only a very insufficient proportion to the wants of the country. A model school, established through the joint exertions, and chiefly at the expense, of Sir James Kay Shuttleworth and Mr. E. C. Tuffnell, at Battersea, has formed a powerful aid by means of the plans tested under the inspection of those gentlemen, and which, as far as they have proved successful, have led to their adoption in other institutions.

Upon the whole, if the progress made towards the systematic education of the entire people be not so great as is desirable, we must acknowledge it to be as much as could reasonably be looked for in the short time that has elapsed since the subject has been taken under the charge of the Government, while it is such as justifies the most sanguine hopes for the future.

A plan has been adopted by the Registrar-General of Births, Deaths, and Marriages in England and Wales, whereby the marriage registers are made available as a test of the proportion of the people to whom instruction has been imparted, so far, at least, as the ability to write affords such a test. In the year ending 30th June, 1839, returns were first made of the number of persons who, from the want of this degree of instruction, have affixed marks instead of signatures to the registers. In the report made by Mr. Lister in 1840, he draws attention to this plan by the following remarks:—

"Almost every marriage is duly registered, and every register of marriage is signed by the parties married; those who are able writing their names, and those who are unable, or who write very imperfectly, making their marks. Therefore, an enumeration of the instances in which the mark has been made will show the proportion among those married who either cannot write at all, or write very imperfectly.

"It may be said in favour of this criterion, that it is free from the disadvantage of selection, including alike every class and condition, and every age, except children and very old persons. It must at the same time be remembered, that although a fair average is thus afforded, the portion of the whole population exhibited in the yearly returns of marriages is small. It appears that there are usually about seven or eight marriages to every 1000 of the population. If, therefore, it be assumed that persons between the ages of eighteen and sixty-five constitute half the population (which the enumeration of ages in 1821 shows to be very nearly the case), it will follow that of those who may be considered the marriageable portion of the community, about 30 in every 1000 (or three per cent.) are married yearly. The portion, therefore, whose signatures appear on the marriage registers of a single year is sufficiently small to be easily affected by accidental circumstances; and it cannot safely be asserted that the 30 in 1000, from whose signatures we would draw an inference respecting the other 970, may not happen to consist of more than the proportionate number of uneducated persons. It must not, therefore, be hastily assumed, upon the evidence afforded by the returns of a single year, that the inhabitants of any particular county or district are less educated than their neighbours. The experiment must be repeated often, and be attended with similar results, before this inference can be drawn with safety; and it is only when returns of the same description, given for several suc-

cessive years, shall have exhibited similar facts, that it will be perfectly justifiable to arrive at an unfavourable conclusion with respect to any particular district."

Since these remarks were written to accompany the first returns of the kind, the experience of other years has been obtained, and the result of the six years, which is given in the annexed table (p. 701), seems, by the uniformity of the proportions, to justify reliance upon this test to a greater degree than was first anticipated.

In the whole of England and Wales, among 367,894 couples married, during three years, it appears that there were 122,458 men and 181,378 women who either could not write at all, or who had attained so little proficiency in penmanship that they were averse to the exposure of their deficiency. The numbers so subscribing the marriage register in each year were—

Years ending 30th June.	Number of Marriages.	Persons affixing Marks.		Years ending 31st Dec.	Number of Marriages.	Persons affixing Marks.	
		Men.	Women.			Men.	Women.
1839	121,033	40,587	58,959	1842	118,825	38,031	56,965
1840	124,329	41,812	62,523	1843	123,818	40,520	60,715
1841	122,482	40,059	59,896	1844	132,249	42,912	65,073

During the three years ending 30th June, 1841, the ages were ascertained of 40,874 persons, or 20,437 couples who were married, as under :—

Ages.	Men.	Women.
15 and under 20 years	537	2,711
20 „ 25 „	10,383	10,424
25 „ 30 „	5,103	3,951
30 „ 35 „	1,900	1,498
35 „ 40 „	944	739
40 „ 45 „	603	532
45 „ 50 „	371	273
50 „ 55 „	271	161
55 „ 60 „	147	69
60 „ 65 „	112	55
65 „ 70 „	41	17
70 „ 75 „	15	5
75 „ 80 „	6	2
80 „ 85 „	4	..
	20,437	20,437

The mean ages of the above were,—

Men . . . 27·30 years
Women . . 25·35 „

so that the test of education applies to the condition, in this respect, of the population generally as it existed about ten to fifteen years before. By continuing to record the facts in future years, we shall have a tolerable guide of the progress in intellectual acquirement—so far at least as elementary instruction is concerned—in the years that have followed. It must be apparent how much room was afforded for improvement in this essential object.

DIVISIONS.	Proportion per Cent. who signed with Marks.											
	Years ending 30th June,				Years ending 31st December,							
	1839		1840		1841		1842		1843		1844	
	Men.	Wom.	Men.	Wom.	Men.	Wom.	Men.	Wom.	Men.	Wom.	Men.	Wom.
Metropolis	11·6	23·9	12·1	24·8	11·4	23·7	11·5	23·0	12·0	23·8	12·1	24·8
South-Eastern Counties:— Surrey, part of Kent (except Greenwich) Sussex Hants Berks	32·6	40·0	32·6	41·2	32·3	40·2	32·1	38·6	31·8	38·6	30·8	38·0
South Midland Counties:— Middlesex, part of Herts Bucks Oxford Northampton Huntingdon Bedford Cambridge	42·7	52·7	43·5	53·9	43·1	52·6	41·8	50·5	42·3	52·4	41·3	50·8
Eastern Counties:— Essex Suffolk Norfolk	45·1	51·7	48·1	53·8	45·0	50·8	45·6	51·1	46·1	50·6	45·6	51·7
South-Western Counties:— Wilts Dorset Devon Cornwall Somerset	32·4	47·0	34·3	48·4	33·9	47·0	34·6	47·8	34·9	48·4	34·1	46·4
Western Counties:— Gloucester Hereford Salop Worcester Stafford Warwick	39·7	53·6	38·7	53·5	37·5	51·3	36·1	49·5	37·1	50·9	37·3	51·6
North-Midland Counties:— Leicester Rutland Lincoln Nottingham Derby	32·8	50·1	33·3	50·7	32·2	47·1	30·7	47·4	31·9	48·0	31·1	49·3
North-Western Counties:— Chester Lancaster	41·7	64·2	38·7	66·5	38·1	66·1	36·3	64·7	38·5	66·5	38·8	66·7
York	33·6	56·9	35·2	59·1	32·7	55·8	33·2	57·4	54·0	57·2	33·9	58·5
Northern Counties:— Durham Northumberland Cumberland Westmoreland	20·6	42·3	22·1	42·8	21·5	42·1	21·2	41·0	21·4	41·9	19·4	38·4
Monmouth and Wales	48·2	69·6	48·1	69·2	47·5	69·4	43·7	66·6	43·8	68·1	44·4	67·8
England and Wales *	33·7	49·5	33·6	50·3	32·7	48·8	32·0	47·9	32·7	49·0	32·4	49·2

* The proportions of persons who affixed their marks to the registers in 1846 were—

	Men.	Women.
Metropolis	11·6	22·6
England and Wales	32·6	48·1

We might have expected to find that the inhabitants of the metropolis had some advantage over the rest of the kingdom in their intellectual acquirements, but certainly not in the degree that is indicated by these returns, from which it appears that the proportion of persons unable to write is only one-half of that found in the otherwise most favoured division (the south-eastern counties), and which, indeed, from its locality, partakes in some considerable degree of the conditions of the metropolis, while the proportion is less than one-third of that found in Monmouthshire and Wales. Some part of the apparent superiority of the metropolis is probably attributable to the fact, that among the easy classes, a proportion greater than they bear to their numbers in the country generally are married in London; but it is to be feared that another and a less reputable explanation is to be found in the low condition of morals, which leads to connexions among the working classes unsanctioned by the church, for which a crowded metropolis offers greater facilities, and against which it presents fewer restraints than are to be found elsewhere.

The proportion of ignorance exhibited in 1839 by Monmouthshire and Wales, where 48 in 100 of males, and 69 in 100 of females, were unable to write their names, offers a striking commentary upon the scenes of violence that were committed in that quarter in November, 1839, and which, with their cause—the absence of due means for instruction—formed the subject of a report made to the Committee of Council on Education by Mr. Tremenheere, which was published by that body in the following year. It there appeared that more than two-thirds of the children of the working classes in the district did not attend any school, and that, as regarded the remainder, the means provided for instruction, and its quality, were for the most part little calculated to produce any good result.

Next in the order of ignorance to the district just mentioned stand the great manufacturing counties of Chester and Lancaster, in which forty per cent. of males, and sixty-five per cent. of females, were unable to sign their names. At the time when the individuals to whom this test was applied in the years comprised in the returns were of an age to profit by instruction, there had been no interference with the subject on the part of the legislature. The measures which have since been adopted may reasonably be expected to remove from those counties, and from others similarly circumstanced, the stigma now affixed to them by the revelations of the Registrar-General.

The statistics of education in Scotland are deserving of greater confidence than those relating to England and Wales, owing probably to the much superior machinery that can be employed for their collection. Every parish in Scotland contains at least one parish school, and there are but few parishes in which further provision has not been made for

the instruction of the people. Returns of the number of children educated in these schools have at different times been called for by Parliament, from which the following figures have been taken:—

	1825 Scholars.	1836 Scholars.	1837 Scholars.
In parochial schools . . .	56,232	57,332	61,921
In schools not parochial . .	101,495	119,350	128,318
Total . . .	157,727	176,682	190,239

The increase in the numbers between 1825 and 1836 was hardly equal to the increased number of persons of ages requiring instruction. The number between five and fifteen years of age, in 1821, was found to be twenty-four per cent. of the whole population, and according to this proportion the numbers between those ages in each of the above years, must have been—

In 1825	528,508
1836	599,288
1837	605,620

The proportion receiving instruction, therefore, was—

In 1825	29·84 per cent.
1836	29·48 „
1837	31·41 „

The increase of scholars in the parochial schools, comparing 1837 with 1825, is not equal to the increased number of children living at the later period, and although, in schools established by private persons, the proportion was more favourable than in 1825, it was still far below the requirements of the population, leaving 415,381 children, or 68·59 per cent. of the whole, unprovided with education, from which number must, however, be deducted children who receive instruction under their parents' roof.

The following particulars, taken from the parliamentary returns, explain the nature of the instruction imparted in the Scottish schools. The attention long bestowed upon the subject of education in that part of the kingdom will sufficiently account for the advantageous position which the natives of Scotland so generally acquire for themselves when they quit the land of their birth, and further may in part explain why the burthen of providing for the maintenance of the poor has been there so inconsiderable when compared with the like burthen in England:—

	Parochial Schools.	Non-Parochial Schools.
Number of schools which returned answers	924	2,329
„ „ did not return answers	129	1,025
„ in which the scholars are periodically examined. .	917	2,015
„ of teachers	1,054	2,940
„ „ having other occupation	286	214

Number of schools in which are taught—	Parochial Schools.	Non-Parochial Schools.
English	924	2,280
Gaelic	12	239
Greek	445	191
Latin	664	501
Modern languages	307	214
Mathematics	689	683
Arithmetic	900	1,810
Geography	761	1,141
History	602	901
Religious instruction	923	2,254
Singing	201	512
Drawing	109	211
Number in which the scholars are taught in classes	923	2,300
„ „ monitors are employed	646	1,092
„ „ instruction is afforded in gardening, agriculture, or any mechanical operation	36	51

The opposition offered to the Government plan of education in England has been of a moderate character when compared with the hostility shown to the Board of National Education in Ireland. It has ever been the bane of that portion of the kingdom that the rancour of party spirit has been allowed to interfere with every effort made for the improvement of the people.

It was probably owing to the evils arising from the state of society in which this irrational habit was possible—a habit which annihilated every feeling of citizenship, and converted every man into a party bigot—that drew the attention of the Government earlier than was done for England to the necessity of providing a plan of education which should bring together in fellowship the members of the two great opposing factions. From its first institution, in 1831, by Lord Stanley, the plan of education for Ireland has by its success in this respect proved itself entitled to be called National. The plans previously sanctioned by successive Governments having ostensibly this object, did not owe their failure to the want of money, which indeed was liberally provided by Parliament. To one society, "The Incorporated Society for promoting English Protestant Schools in Ireland," which was founded in 1731, upwards of 1,100,000*l.* were at different times voted, and about 500,000*l.* more was granted in about 50 years for the support of the "Charter Schools," besides other sums of smaller amount devoted during the same years to the like purpose. The effects recently produced in England by sums which, compared with these, are quite insignificant, may serve to show what might have been accomplished in Ireland had the liberality of Parliament not been counteracted by the spirit of bigotry and intolerance on the part of those to whom the administration of the funds was intrusted. In their hands the well-understood object of the schools established was not education, but making proselytes; and the result of their management was precisely what might have been foretold.

Nothing could be better in intention than the legal provision made from an early period of our history for educating the youth of Ireland, and nothing could well be worse than the practical result. In the reign of Henry VIII. a statute was passed, entitled "An Act for the English Order, Habit, and Language," under which the ecclesiastical authorities were directed to administer an oath to every person receiving spiritual promotion, "That he would teach the English tongue to all in his cure; that he would bid the beads in the English tongue; and further, that he would keep or cause to be kept, within the place, territory, or parish, where he should have any rule, benefice, or promotion, a school to learn English, if any of the children of the parish should come to him to learn the same, taking for the keeping of the same school such convenient stipend or salary as in the said land was accustomally used to be taken." This statute was confirmed by the 7th Act of Will. III., and is still unrepealed; and every clergyman, on his induction to a living in Ireland, is required by law to take an oath in the following terms:—"I do solemnly swear that I will teach, or cause to be taught an English school within the vicarage (or rectory) of * * * as the law in that case requires." The performance of the duty thus solemnly undertaken, it has been the almost universal custom of the incumbents of parishes to confine within the payment of forty shillings per annum as a salary to a schoolmaster, which act, if it be held to discharge the legal obligation—which is very doubtful—can hardly be thought a fulfilment of the moral duty imposed on them by the statute and confirmed by their own oaths.

By the Act 7. Will. III., it was made penal to receive any other than a Protestant education, and it was enacted that no person of the Romish religion should publicly teach a school under a penalty of 20*l.* and three months' imprisonment. Where schools were kept, the richer papists would not send their children to them, and the charge made was so high that the poorer people could not do so.

The "Incorporated Society," already mentioned, was founded expressly to perform the work of proselytism, for which purpose the managers found it necessary to cut off all intercourse between the pupils and their parents, by confining them within the walls of the schools during the whole period of their education. The expense attending these schools was accordingly great, while the natural repugnance of the parents to the breaking up of the ties between themselves and their children was so strong that, *except in years of scarcity*, the numbers which the schools were able and willing to receive were never kept up; and although, in addition to the munificent grants of Parliament, private benevolence was greatly exercised in their behalf, the society was at no time able to instruct so many as 2000 scholars. In 1784, John Howard, in addition to his inquiries concerning prisons, applied himself to

examine the state of the charter schools of Ireland, his account of which induced the Irish House of Commons to appoint a committee for the further investigation of the subject. From the report of this committee it appeared that the schools were out of repair and going to ruin; that the children were "sickly, pale, and such miserable objects that they were a disgrace to all society; that their reading had been neglected for the purpose of making them work for their masters; that they were in general filthy and ill-clothed, without shifts or shirts, and in such a situation that it was indecent to look on; the diet was insufficient for their support; and in general they had the itch, and other eruptive disorders." The public money was thus shown to be expended "for the purpose of imprisoning, starving, beating, diseasing, destroying the natural affections, and letting the understanding run to waste, of about 1400 poor children annually, under the pretence of instructing and converting the young generation."

The Irish Parliament contented itself with thus ascertaining the evils, and continued to vote the public money to the society without making any provision for their prevention; so that at the period of the legislative union the schools continued in the same condition of neglect and disorder, although the yearly expenditure had increased to 20,000*l.* From that time to 1825 the Imperial Parliament voted for the charter schools of Ireland, sums amounting to 675,707*l.* in addition to other sources of income, and the expenditure during those twenty-five years amounted to 884,739*l.*, for which sum they maintained *on the average* thirty-five schools and 1870 children, so that the yearly cost of each school was 1000*l.*, and of each scholar 18*l.* 18*s.* In 1824, when the attention of a parliamentary commission was directed to the subject, there were found only twenty-four boarding-schools, with about 1700 scholars. In the course of that year 500 infants from the Foundling Hospital, an institution supported by parliamentary grants, were transferred to the charter schools.*

Notwithstanding the extravagant outlay for these charter schools, the advantages derived from them were exceedingly small, if indeed they were productive of any advantage whatever. This remark is fully warranted by the following extract from the First Report of the Commissioners for Inquiring concerning Education in Ireland, presented to Parliament in 1825:—

"We are convinced that if a thousand children, educated in charter schools, were to be compared with an equal number who had remained in apparently wretched cabins inhabited by their parents, but who had

* In 30 years, from 1797 to 1826, out of 52,000 children admitted into the Foundling Hospital, 41,500 died. The money granted to the institution by Parliament during that period amounted to 753,685*l.*

attended orderly and well-regulated day-schools, it would be found, not only that the latter had passed their years of instruction far more happily to themselves, but that, when arrived at the age of manhood, they would, upon a general average, be in every respect more valuable and better-instructed members of society; they would have improved in knowledge under circumstances which would have strengthened and confirmed their connexion with all those to whom they must naturally look for protection and assistance, and would enter upon life with their affections awakened, their principles confirmed, and their character raised by the reliance they would have learned to place in their own exertions, and in the practice they would have acquired of controlling and conducting themselves.

"It is very different in the instance of a boy let loose from a charter school, who has lived in a state of existence entirely artificial. All his wants having been supplied by the care of others; he has become peevish, fretful, and impatient, if not supplied according to rule. His mind is impressed by a feeling of sullenness resulting from a system of severity and terror. His expectations have been unduly raised as to his own future prospects, though the habits of indolence and apathy, which have appeared to us peculiarly to characterise these children, render them altogether unsuited to the active, patient, persevering exertions which are necessary to their success in life.

"The expenditure of the society during the ninety years it has been in operation, has been no less than 1,612,138*l.*, of which the sum of 1,027,715*l.* was derived from parliamentary grants."

In the session of 1814-15 a grant of 6980*l.*, Irish currency, was made by Parliament to "The Society for promoting the Education of the Poor in Ireland." This society was formed in 1811, and was at first wholly supported by private subscriptions. When parliamentary assistance was rendered, model-schools for male and female children were erected, and the society has since been known, from the name of the site chosen for these buildings, as the Kildare-street Society. Its active operations began in 1817, and the progress made during nine years to 1825 was as follows:—

Years.	Schools in connexion.	Scholars.
1817	8	557
1818	65	4,527
1819	133	9,263
1820	241	16,786
1821	381	26,474
1822	513	36,657
1823	727	51,637
1824	1,122	79,287
1825	1,395	102,380

In 1831 the number of schools in connexion with this society was 1621, and of scholars 137,639. From this time the numbers began to decrease. Various reasons are assigned for this circumstance. The establishment of national schools, under the immediate patronage and direction of the Government, and the discontinuance of the parliamentary grants, are among the chief of these reasons; but to these must be added a growing dislike on the part of the Roman Catholic clergy, because of the rule of the society which obliged the children to read the Scriptures without note or comment, and indeed forbade the use of any comment, whether written or oral.

The model-schools in Kildare-place were well conducted, and the schools in connexion with the society were "convenient, cleanly, and in good order, and the instruction given extremely efficient." The only bar to their successful extension was offered by the rule which interfered with the discipline considered by the Church of Rome as being proper for the religious education of its members.

This difficulty was removed by the establishment of a Board of Commissioners for National Education in Ireland. The reasons for this establishment, and the principles by which it should be governed, are fully explained in a letter addressed in October 1831 by Lord Stanley, then Chief Secretary for Ireland, to the Duke of Leinster.

A Committee of the House of Commons had recommended, in 1828, the adoption of a system "which should afford, if possible, a combined literary and a separate religious education, and should be capable of being so far adapted to the views of the religious persuasions which prevail in Ireland as to render it, in truth, a system of national education for the poorer classes of the community."

In order to afford security to the country that "while the interests of religion should not be overlooked, the most scrupulous care should be taken not to interfere with the peculiar tenets of any description of Christian pupils," it was required "that the schools be kept open on four or five days of the week, at the discretion of the Commissioners, for moral and literary education only; and that the remaining one or two days in the week be set apart for giving, separately, such religious education to the children as may be approved of by the clergy of their respective persuasions. The clergy are also permitted and encouraged to give religious instruction to the children belonging to their respective persuasions, either before or after the ordinary school hours, on the other days of the week."

During the first few years after their appointment, the Commissioners for National Education in Ireland had to combat against a most determined hostility, chiefly on the part of the Protestant clergy. This has happily now in a great measure, if not entirely, ceased, and the number of schools and scholars has been steadily advancing from year to year.

During each of the sixteen years, 1834 to 1849, the numbers have been as follows:—

Years.	Schools in operation.	Children on the Rolls.	Years.	Schools in operation.	Children on the Rolls.
1834	789	107,042	1842	2,721	319,792
1835	1,106	145,521	1843	2,912	355,320
1836	1,181	153,707	1844	3,153	395,550
1837	1,300	166,929	1845	3,426	432,844
1838	1,384	169,538	1846	3,637	456,410
1839	1,581	192,971	1847	3,825	402,632
1840	1,978	232,560	1848	4,109	507,469
1841	2,337	281,849	1849	4,321	480,623

The diminished number of scholars in 1847 must be considered one of the sad results of the famine in that year, which caused such devastation by death among the people of Ireland and so much misery among the survivors.

Is it unreasonable to assign the successful establishment of a system of education which brings together in peaceful fellowship the children of persons of different creeds, as one among the causes which have produced the comparative quietude enjoyed by a great part of Ireland during the past few years; and if this desirable end has been promoted in even a greater degree by the habit of sobriety that has so rapidly spread throughout the island, may we not also in part account for the possibility of this great reformation through the influence of well-conducted schools? No one who has witnessed the effects produced by such establishments in districts where they had not previously existed, needs to be told that their moral effects are not confined to the children by whom the schools are attended, but that an immediate and powerful influence is exercised by them over the parents also.

CHAPTER V.

POSTAGE, &c.

Legislative Sanction of Mr. Rowland Hill's Plans—Rapid Progress of Public Opinion regarding them—Stationary Condition of Post-office Revenue—Illicit Conveyance of Letters—Number of Letters that passed through the London General and District Post-offices in 1839-40 and 1841 to 1849—Estimated Number of Letters posted in the United Kingdom before and after the Reduction of the Rates, and per centage Increase—Increased Revenue from Post-office in 1842—Progress of Post-office Revenue, 1758 to 1849—Rates of Postage charged in England, Scotland, and Ireland from 1710 to 1840—Effect upon the Net Revenue of successive Alterations of the Rates—Newspapers—Excessive Stamp Duty thereon encouraging unstamped Papers—Reduction of Duty and suppression of Illegal Publications—Circulation of Newspapers, and Revenue therefrom, 1801 to 1842—Number of Papers published in different Divisions of the Kingdom, and their Circulation, 1839 to 1849.

SINCE the publication of the first edition of this work, the Legislature has sanctioned the plans then in agitation for the adoption of a low and uniform rate of postage upon letters passing from one part to another of the United Kingdom.

Those plans, suggested and enforced by Mr. Rowland Hill with a high degree of energy and ability, were at first received by the public as amusing speculations, but little likely to be carried into practice. The proposal that the Government should, for the small charge of a penny, convey a letter from Penzance to the Orkneys, seemed, before the matter was fully investigated, and its practicability demonstrated, to be most unreasonable. The public had grown up in the belief that the charge for the transmisssion of a letter was fairly required as payment for a service performed at an infinitely cheaper rate than would defray the expense of transmission and distribution, if undertaken by the individual writer. In proportion, however, as the subject was examined, and as Mr. Hill's calculations were tested, this view of the case was abandoned. It appeared that the actual expense to the Government for conveying each letter between the most distant points of the kingdom was only a fractional part of a farthing; and that to charge, as in many cases was done, more than 480 times the actual cost, was equivalent to the imposition of a heavy tax upon communications of all kinds, whether carried on for purposes of business, or for gratifying the sympathies of family affection and friendship. It was well said by one of the advo-

cates of "postage reform," that "if a law were passed forbidding parents to speak to their children till they had paid sixpence to Government for permission, the wickedness would be so palpable that there would be an end to the tax, in that form of exaction, in twenty-four hours. Yet what difference is there in principle when parents are prohibited from writing to their children, and children to their parents, unless they pay that tax under the name of postage?"

In a short time from the first publication of Mr. Hill's proposals, their advantages and justice were made so apparent that numerous petitions in their favour were presented to Parliament, and a committee, consisting of some of the most influential bankers, merchants, and traders in London, was formed in order to assist in procuring their adoption. The matter was shortly after taken up by the House of Commons, and a committee appointed for its consideration recommended a partial adoption of the scheme. Such, however, was the force of public opinion that the Government was carried beyond the recommendation of this committee, and in the month of August, 1839, an Act was passed sanctioning the reduction of the rates of inland postage to one uniform rate of a penny on every letter of a given weight, with a proportionate increase for greater weights, and giving authority to the Lords of the Treasury to carry this change into effect by such steps as they should think advisable.

Under this Act a Treasury Order was issued on the 12th of November, 1839, directing that all letters should be charged by weight instead of according to the number of sheets or of inclosures, as was practised under the former law, and directing that on and after the 5th of December in that year the single postage rates between places in the United Kingdom which exceeded fourpence should be reduced to that uniform rate; on the 10th of January, 1840, the uniform rate of one penny per half-ounce came into general operation, and on the 6th of May following pre-payment by the use of stamps was begun.

In estimating the probable results of his plans, Mr. Hill assumed that the reduction of the existing rates to one uniform charge of a penny per half-ounce would put an entire stop to the contraband conveyance of letters, which was carried on to an enormous amount, and that it would produce a great extension of the actual correspondence; so great, indeed, as in a few years to restore the gross revenue of the Post-office to the amount which it had reached under the old system.

The great extent to which the illicit conveyance of letters had extended was clearly brought out in evidence before the committee of the House of Commons. As one instance, it may be mentioned that a bag, containing eleven hundred letters, was seized in a carrier's warehouse; but if direct evidence of this fraudulent practice had been wanting, the fact of its existence might have been inferred from the condition of the

Post-office revenue, which had continued nearly stationary during a great number of years, while the population had been rapidly increasing, and the manufacturing and commercial transactions of the country had been making gigantic strides. Such a reduction of the rates of postage as that advocated and afterwards adopted, would at once put an end to the illicit conveyance of letters as a trade, and cause the whole correspondence of the country to pass through the Post-office. This in itself would cause a large increase of business, without reckoning that one letter additional should be written because of the cheapness of conveyance. But all experience in analogous cases gave assurance that a progressive and very great increase would follow from such a wholesale abatement in the charge as that advocated. It was shown by Mr. Hill that a sixfold increase in the number of letters sent by the post would yield as large a revenue to the State as the highest rates charged; and some persons have charged that gentleman with having been grossly deceived in his expectations, because, in two years from its adoption, the low rate of charge did not produce a multiplication of correspondence to that amount. It is not convenient or necessary to go into an examination of the circumstances attending this branch of the public revenue in order to obtain grounds for adopting, or otherwise, the opinion that a sixfold increase would so immediately follow upon the change of system. Nothing published by Mr. Hill justifies us in charging such an error against him, and it is in justice to him that the reader's attention is requested to the following extract from his pamphlet upon this branch of the subject:—

"But in considering the subject of increase, it must be remembered that, however desirable, and however probable, a large increase may be, it is not counted upon as either certain or essential to the plan. The proposed regulations are not founded upon the presumption that in their adoption the revenue is secured from all risk of suffering. What I have endeavoured to show is, first, that it is very possible the revenue may not suffer at all; and secondly, that it is highly probable it will not suffer much. Supposing, however, that the Post-office revenue should suffer even a serious diminution, it can scarcely be doubted that the cheap transmission of letters and other papers, particularly commercial documents, would so powerfully stimulate the productive power of the country, and thereby so greatly increase the revenue in other departments, that the loss would be more than compensated."

The following return made to the House of Commons in July, 1850, will show how far the hopes expressed of an increased number of letters have been justified by the experience of the Post-office during the period that has elapsed since the adoption of the uniform rate of one penny, down to the end of 1849:—

Return, as nearly as can be estimated, of the Number of Chargeable Letters delivered in the United Kingdom in the Year immediately preceding the first general Reduction of Postage, on the 5th day of December, 1839, and for each complete Year subsequent thereto; also, for the first Year, the Number of Franks.

Year ending 31st December.	ENGLAND AND WALES.			Total England and Wales.	Total Ireland.	Total Scotland.	Gross Total United Kingdom.
	Country Offices.	London, Inland, Foreign, and Ship.	London District Post.				
Estimated Number of Letters, 1839	..	..	..	59,982,520	8,301,904	7,623,148	75,907,572
" Franks, "	..	..	..	5,172,284	1,054,508	336,232	6,563,024
" Letters, 1840	88,039,791	23,559,835	20,372,382	132,003,525	18,210,642	18,554,167	168,768,244
" " 1841	103,395,677	27,966,722	23,108,722	154,471,122	20,794,297	21,334,772	196,500,191
" " 1842	111,115,489	29,385,282	23,389,942	163,896,714	22,328,154	22,215,583	208,434,451
" " 1843	117,704,474	30,908,743	24,881,310	173,494,628	23,482,463	23,473,216	220,450,308
" " 1844	129,096,023	33,575,936	26,980,460	189,652,419	25,937,188	26,502,077	242,091,685
" " 1845	147,227,431	36,097,711	30,828,486	214,153,628	28,587,993	28,669,168	271,410,793
" " 1846	162,624,024	39,993,681	33,261,050	235,878,743	32,572,947	31,135,060	299,586,763
" " 1847	175,023,407	43,757,540	34,630,817	253,394,431	35,473,316	33,261,163	322,146,244
" " 1848	180,716,102	45,991,453	33,672,747	260,380,003	34,887,481	33,563,101	328,829,185
" " 1849	187,382,329	48,845,663	33,960,398	268,188,410	35,463,913	34,746,846	337,065,867

The increase from 1839 has, therefore, been—

Years.	Per Cent.	Years.	Per Cent.	Years.	Per Cent.
1840	104	1844	193	1847	290
1841	138	1845	229	1848	298
1842	152	1846	263	1849	308
1843	167				

There can be but little doubt that the lessened rate of increase shown in 1842 was in a great degree, if not altogether, occasioned by the comparative stagnation of trade in that year, and that the return of commercial activity in 1844 and 1845 caused the correspondence of the country again to exhibit a satisfactory progress. If the increase should go forward at the same rate as in the ten years from 1839 to 1849, the gross receipt of the Post-office revenue under the uniform rate of one penny would in 1850 be equal to what it was in 1839, under the old system of high graduated charges. In the intermediate years, although there has been and will be loss to the public revenue derived from this source, there must have been and will be experienced countervailing advantages which could not fail to improve the revenue in other branches; and it even admits of question whether the Government would not find an ultimate advantage in performing all this class of services for the public upon terms that would merely bring back the necessary expenses of their establishments for the purpose. It does not, however, seem necessary to carry reduction, as regards the postage of letters, further than has already been adopted for their transmission from one part of the kingdom to another.

The progress of the public revenue derived from the conveyance of letters at different periods in Great Britain from 1758, and in the United Kingdom in each year of the present century, to the adoption of the uniform rate of one penny, has been as follows:—

GREAT BRITAIN.			
Year ending 5th April.	Gross Receipt.	Charges of Management.	Net Revenue.
	£.	£.	£.
1758	222,075	148,345	73,730
1763	238,999	141,165	97,834
1768	299,133	133,350	165,783
1773	332,006	164,830	167,176
1778	373,564	235,570	137,994
1783	434,051	274,426	159,625
1788	547,084	250,104	296,980
1793	627,592	236,084	391,508
1798	950,476	337,196	613,280
4799	1,012,731	355,343	657,388
1800	1,083,950	362,969	720,981

GREAT BRITAIN.						
Year ending 5th Jan.	Gross Receipt.	Charges of Manage-ment.	Returns.	Net Receipt.	Gross Receipt.	Cl of Y n
	£.	£.	£.	£.	£.	
*1801	1,144,900	350,219	39,382	755,299	66,030	3
*1802	1,289,197	365,657	43,471	880,069	102,293	5
†1803	994,970	240,550	33,071	721,349	102,518	5
‡1804	1,320,585	352,844	42,902	924,839	108,844	6
1805	1,347,842	356,699	46,761	944,382	118,429	6
1806	1,501,841	381,814	53,629	1,066,398	146,682	7
1807	1,568,330	385,306	56,282	1,126,742	149,857	7
1808	1,553,231	304,808	58,547	1,099,876	158,749	7
1809	1,559,345	407,957	59,465	1,091,923	180,510	8
1810	1,675,076	426,016	58,844	1,190,216	180,670	9
1811	1,791,873	445,513	59,001	1,287,359	195,531	10
1812	1,770,547	434,327	59,730	1,272,490	189,963	10
1813	1,883,421	481,430	62,520	1,339,481	195,458	9
1814	2,005,987	519,504	67,532	1,418,951	203,226	9
1815	2,159,867	575,667	77,096	1,507,104	212,562	9
1816	2,193,741	594,045	73,169	1,526,527	225,000	11
1817	2,067,940	543,888	72,340	1,451,712	212,269	10
1818	1,983,165	561,449	68,065	1,353,601	203,456	10
1819	2,043,043	585,688	69,948	1,387,407	197,510	9
1820	1,993,885	481,571	64,291	1,448,623	197,677	10
1821	1,980,364	502,568	77,208	1,400,588	192,511	10
1822	1,935,845	544,159	66,409	1,325,277	187,120	10
1823	1,942,902	526,433	61,357	1,355,106	186,024	9
1824	1,965,468	500,675	64,713	1,400,080	188,826	9
1825	2,055,636	529,801	66,717	1,459,118	199,602	9
1826	2,160,340	542,951	78,810	1,538,629	207,177	9
1827	2,184,514	610,871	74,074	1,499,569	207,757	9
1828	2,052,179	607,681	60,730	1,384,768	216,232	9
1829	2,048,402	566,385	64,612	1,417,405	239,559	9
1830	2,024,418	579,175	65,004	1,380,239	241,063	9
1831	2,053,720	594,349	71,509	1,387,862	247,711	9
1832	2,064,334	574,578	75,040	1,414,716	256,976	8
1833	2,031,603	557,314	81,005	1,396,284	242,671	8
1834	2,062,830	552,735	83,605	1,426,499	232,071	8
1835	2,079,508	611,511	85,443	1,382,554	240,471	8
1836	2,107,676	582,503	84,328	1,440,830	245,664	9
1837	2,206,736	606,220	86,490	1,511,026	255,070	9
1838	2,200,973	574,310	96,979	1,529,684	261,236	10
1839	2,212,781	568,446	95,983	1,548,352	254,434	10
1840	2,267,114	631,934	104,199	1,530,981	255,380	10

* Years ending 5th April. † Three-quarters of
‡ Year ending 5th January.

The Post-office revenue in the United Kingdom, system in 1839, has been as follows:—

Year ending 5th January.	Gross Revenue.	Cost of Management.	Net Revenue.	Postag charged o Governm Departm
	£.	£.	£.	£.
1841	1,359,466	858,677	500,789	90,7
1842	1,439,418	938,168	561,249	113,2
1843	1,578,145	977,504	600,641	122,1
1844	1,620,867	980,650	640,217	116,5
1845	1,705,067	985,110	719,957	109,2
1846	1,887,376	1,125,394	761,982	101,1
1847	1,963,857	1,138,745	825,112	100,3
1848	2,181,016	1,196,520	984,496	121,2
1849	2,143,679	1,403,250	740,429	115,9
1850	2,165,349	1,324,562	840,787	106,9

This branch of revenue is subject to many reductions, which have no proper connexion with the business of the department, and the payments made into the Exchequer under this head do not therefore correctly show the actual working of the establishment. The amount of payments so made into the Exchequer in each year from 1840 to 1849 were as follows:—

Years.	£.	Years.	£.
1840	447,664	1845	753,000
1841	455,000	1846	845,000
1842	608,000	1847	923,000
1843	595,000	1848	815,000
1844	691,000	1849	832,000

The rates of postage for letters in England from 1710 to 1765 were, for the conveyance of a single letter (double, &c., letters in proportion)—

	d.
For any distance not exceeding 80 miles	3
„ above 80 miles	4
Between London and Edinburgh	6
„ Dublin	6

In 1765 the rates for short distances were modified, and the charge for a distance not exceeding "one post stage" (the length of which is not specified) was made a penny, and for a distance above one and not exceeding two post stages, twopence, the charges for greater distances remaining as before.

In 1784 an addition of one penny was made, and the rates for greater distances were altered thus:—

	d.
Not exceeding 1 post stage	2
Above 1, not exceeding 2 post stages	3
„ 2 post stages, not exceeding 80 miles	4
„ 80, not exceeding 150 miles	5
„ 150 miles	6
Between London and Edinburgh and London and Dublin	7

In 1796 another alteration was made, and the rates were—

	d.
For any distance not exceeding 15 miles	3
15 and not exceeding 30 miles	4
30 „ 60 „	5
60 „ 100 „	6
100 „ 150 „	7
Above 150 miles	8

In 1801 and 1805 the rates were again altered as follows:—

	1801 *d.*	1805 *d.*
Distance not exceeding 15 miles	3	4
15 and not exceeding 30 „	4	5
30 „ 50 „	5	6
50 „ 80 „	6	7
80 „ 120 „	7	8
120 „ 170 „	8	9
170 „ 230 „	9	10
230 „ 300 „	10	11
And for every further distance of 100 miles	1	1

In the early part of last century the rates of postage in Scotland were in a slight degree below those charged in England, but they have long since been equalized; and from 1812 an addition of a halfpenny was charged upon each letter, whether single or double, or heavier, passing between England and Scotland.

In 1827 the following scale of rates was applied to the whole United Kingdom, for the conveyance of a single letter. Double, &c., letters were charged proportionally:—

	d.
For any distance not exceeding 15 miles	4
15 and not exceeding 20 miles	5
20 „ 30 „	6
30 „ 50 „	7
50 „ 80 „	8
80 „ 120 „	9
120 „ 170 „	10
170 „ 230 „	11
230 „ 300 „	12
300 „ 400 „	13
400 „ 500 „	14
500 „ 600 „	15
600 „ 700 „	16
Exceeding 700 miles	17

The postage rates charged in Ireland from 1784 to 1797 were—

	d.
For any distance not exceeding 15 miles	2
15 and not exceeding 30 miles	3
Exceeding 30 miles	4

In 1797, 1805, and 1810, the rates were advanced as follows:—

	1797	1805	1810
	d.	d.	d.
Distance not exceeding 15 miles	2	3	4
15 and not exceeding 30 „	3	4	5
30 „ 50 „	4	5	6
50 „ 80 „	5	6	7
Exceeding 80 miles	6	7	8

In 1813 and 1814 the following charges were made:—

1813

	d.
Distance not exceeding 10 miles	2
10 and not exceeding 20 „	3
20 „ 30 „	4
30 „ 40 „	5
40 „ 50 „	6
50 „ 60 „	7
60 „ 80 „	8
80 „ 100 „	9
Exceeding 100 miles	10

1814

Distance not exceeding 7 miles	2
7 and not exceeding 15 „	3
15 „ 25 „	4
25 „ 35 „	5
35 „ 45 „	6
45 „ 55 „	7
55 „ 65 „	8
65 „ 95 „	9
95 „ 120 „	10
120 „ 150 „	11
150 „ 200 „	12
200 „ 250 „	13
250 „ 300 „	14
And for every 100 miles additional	1

The changes made in the rates during the present century were calculated to produce the following results :—

Years.	Increase of Revenue. £.	Diminution of Revenue. £.
1801	150,000	..
1805	230,000	..
1813	220,000	..
1819	..	17,600
1821	2,200	..
1824	4,000	..
1825	5,100	..
1827	..	80,000
1831	..	25,000
1835	5,500	..
1836	..	31,470
Total increase . .	616,800	£154,070
Diminution . . .	154,070	
Estimated increase	£462,730	

which sum, added to the net revenue from postages in 1801, would have amounted to 1,374,605*l.* The sum actually received in 1837, the year following the latest alteration included above, was 1,658,481*l.*, showing an apparent advance of 283,876*l.*; but between 1801 and 1836 the population had increased 59½ per cent., and to have kept pace with that increase the Post-office should have yielded 2,192,495*l.*, or 534,015*l.* more than the actual result. It is curious to observe the altogether stationary condition of this branch of the public revenue, while such rapid progress was experienced in the trading and manufacturing pursuits of the country. This alone gave sufficient evidence that the rates imposed were excessive, and that their modification was needed.

Owing to the great craving of the people for information upon political subjects during the agitation that accompanied the introduction and passing of the Bill "to Amend the Representation of the People," commonly known as "The Reform Bill," a great temptation was offered for the illegal publication of newspapers upon unstamped paper, many of which were sold in large numbers in defiance of all the preventive efforts made by the officers of Government. The stamp duty of fourpence upon each sheet placed the legally-published journals beyond the reach of the working classes, who eagerly availed themselves of the low-priced papers offered, and which, however inferior they might be in every quality that should attend them, gave, or professed to give, the information that was so eagerly sought. A great evil, greater even than the infraction of the law that accompanied this state of things, resided in that inferiority; the writers of those unstamped papers making up in violence for their deficiencies of talent and information, produced corresponding feelings in the minds of their readers; and as it was felt to be impossible to put down the illegal publications without

having recourse to a system of harshness that might produce even more violent and more widely-spread feelings of dissatisfaction, the Government wisely gave way, and effectually and at once put an end to the illegal publications by reducing the duty from 4*d.* to 1*d.* per sheet. This measure was announced in the House of Commons in March, 1836, and the Act by which it was sanctioned was passed in the month of August following.

The circulation of stamped newspapers since that time has very greatly increased, as it was reasonable to expect would be the case. The number of stamps issued at different periods before and since the reduction of the duty, and the net revenue derived from the same, have been as follows:—

IN GREAT BRITAIN.

Years.	Number.	Gross Revenue.	Years.	Number.	Gross Revenue.
		£.			£.
1801	16,085,085	185,806	1825	26,950,693	449,574
1811	24,421,713	298,574	1826	27,004,802	451,676
1821	24,862,186	335,753	1827	27,368,490	458,559
1822	23,932,403	398,873	1828	28,007,335	473,354
1823	24,670,265	411,171	1829	28,691,611	480,968
1824	25,573,909	431,668	1830	30,158,741	505,439

IN UNITED KINGDOM.

Years.	Number.	Net Revenue.	Years.	Number.	Net Revenue.
		£.			£.
1831	35,198,160	483,153	1838	53,347,231	221,164
1832	34,465,860	473,238	1839	55,891,003	238,394
1833	32,468,940	445,835	1840	60,922,151	244,416
1834	32,229,360	441,683	1841	59,936,897	252,003
1835	33,191,820	453,130	1842	61,495,503	261,161
1836	35,576,056	359,826	1843	65,767,035	271,180
1837	53,496,207	218,042	1844	71,222,498	287,829

The number of papers published in England, Wales, Scotland, and Ireland respectively, distinguishing London from the rest of England, and the number of stamps issued to each of those divisions in the four years from 1839 to 1842 were as follows:—

	1839		1840		1841		1842	
	No. of Papers.	Number of Stamps.	No. of Papers.	Number of Stamps.	No. of Papers.	Number of Stamps.	No. of Papers.	Number of Stamps.
London . .	96	28,719,271	153	30,705,340	134	31,075,332	125	32,166,474
England (exclusive of London) .	242	17,255,798	250	19,402,573	232	17,346,180	221	17,508,381
Wales . .	10	378,700	12	478,400	12	478,350	12	445,930
Scotland . .	64	4,102,636	72	4,478,333	71	5,042,012	76	5,388,079
Ireland . .	82	5,434,598	91	5,857,505	92	5,995,023	87	5,986,639
Total .	494	55,891,003	578	60,922,151	541	59,936,897	521	61,495,503

The aggregate number of newspaper stamps issued in 1849 was as follows:—

	Number of Papers.	NUMBER OF STAMPS.		
		Penny.	Halfpenny.	Total.
England and Wales . .	392	66,159,502	10,309,233	76,468,735
Scotland	94	6,288,205	205,000	6,493,205
Ireland	117	6,345,227	38,843	6,384,070
	603	78,792,934	10,553,076	89,346,010

There is another subject intimately connected with the moral progress of the United Kingdom which it would be desirable to investigate, if any method could be adopted for that purpose, and whereby it could be treated in a manner analogous to that hitherto pursued with other subjects in these pages. That branch comprises the progress made in science, literature, and the arts. It is plain, however, that there are no recognised standards or positions from which that progress can be measured, and that any opinion that might be expressed regarding it must convey only the views of an individual, unsupported by facts that would command general assent.

No one who has been a careful observer of what has been and is passing around him will for a moment question that very great progress has been made by our country during the present century in all the various branches of human discovery and acquirement; but the precise amount or the comparative value of that progress cannot possibly be measured by the advances made in former periods, and which themselves are equally without a standard or measure of comparison. If, however, this difficulty could be surmounted, is it not probable that we should find—regard being had to the superior facilities afforded to each succeeding age through the labours of its precursors—that the efforts of the human mind, and the success attending those efforts, have been much the same at all periods; and that, consequently, if we have profited as well of our opportunities as our fathers did of those bequeathed to them, we must have made greater and more rapid strides than any who have gone before us in the walks of science and all other branches of intellectual progress, whereby we shall have prepared the way for a still more rapid advance on the part of those who will succeed us?

If this reason for avoiding the discussion should not be considered satisfactory, it may be further urged that the subject does not admit of being properly treated within the limited space that could be devoted to it in this work; a large volume, indeed, would not suffice to do justice to the question.

SECTION VIII.

COLONIES AND FOREIGN DEP

CHAPTER I.

ADVANTAGES OF COLONIES.

Erroneous Views entertained on the Subject — Whence ari System; Mischief resulting from it—Advantages of granti Colonies—Field for profitable Enterprise offered by Colonies the prudent Government of Colonies—Frequent Changes o this end—Suggestions for establishing a permanent Colonial of State—Analogy of such a Plan with that pursued by t Political advantages of possessing Colonies—Negative Adv possession.

If called upon to declare the circumstance in the which, more than all other things, makes her the nations, it would be to her colonial possessions th that feeling. In the eyes of foreigners those posse evidence of our power and the surest indicant of different estimate of their importance is, however, ourselves. How often do we hear the value of th ciated; nay, how common is it to be told that En prosperous and happy without colonies!

Nor is this doctrine confined to the common her forth from time to time by men who would teach and is occasionally heard even within the walls of t ment, where, so often as some real or alleged act extravagance in our colonial administration is occasion is used for displaying to the world how s science of government may be possessed by men selves one of the highest functions of society—tha its regulation. "Colonies are mismanaged—ther

They are the source of ceaseless expense—therefore it would be wise to rid ourselves of the incumbrance!" Such has been the cry from time to time, and more or less at all times, of men who, while they put themselves forward as being competent to assist in the government of a nation, are unable to discern the difference between use and abuse, or to see that in politics as well as in all other branches of human concerns, everything, however useful or even necessary to happiness, may be converted into an injury by our unwise mode of dealing with it.

It would form a very inconclusive argument against the value of colonies and foreign possessions, that under bad or defective systems of government they had always been productive of evil. The like objection might as reasonably be made against every personal and every national blessing. Wealth may be abused, intellectual gifts may be perverted, station and power may be prostituted to serve the most unrighteous purposes, and we all have seen these things happen; but do we thence find occasion to denounce the pernicious nature of riches, or mental endowments, or personal and national influence, and to renounce them, together with the good they are calculated to yield? It would seem to require but one moment's reflection to be convinced that colonial possessions must be capable of adding to the wealth, the power, and the resources of the parent State, if the right means for making them so shall be adopted; and that if, on the contrary, they have tended to our weakness and impoverishment, these consequences are attributable not to anything inherent in the nature of those possessions, but to unwise legislation or to unjust government.

Under the influence of these perverse causes, colonies may be, and too frequently have been and are, sources of weakness rather than of strength to the parent State; and probably to no country have they been so in the same degree as they have been to England. The principal cause of this fact it is not difficult to point out. Until a recent period the trade with our dependencies has been converted into a close monopoly in favour of England; and although various relaxations were from time to time made in this selfish system, it was, until quite recently, sought to retain a great share of the supposed advantages of monopoly by means of differential duties chargeable in the colonies against the productions and manufactures of foreign countries. Many years have not passed since the ports of our colonies were closed against all ships save those under the British flag, while the ships of those colonies were prohibited from trading with any foreign country. Bryan Edwards, in his 'History of the West Indies,' thus plainly describes the system:—"The leading principle of colonization in all the maritime States of Europe (Great Britain among the rest) was commercial monopoly. The word *monopoly* in this case admitted a very extensive interpretation. It comprehended the monopoly of supply, the monopoly of colonial produce, and

the monopoly of manufacture. By the
bited from resorting to foreign markets
by the second they were compelled to brin
to the mother-country alone; and by th
a raw or unmanufactured state, that her
to themselves all the advantages arising f
This latter principle was carried so far
Britain as to induce the late Earl of Cha
that the British colonists in America ha
a nail for a horse-shoe."*

We have the further testimony on th
thus describes the origin of this spirit o
trade with our colonies:

"To found a great empire for the sol
of customers may at first sight appear
shopkeepers. It is, however, a project alto
keepers; but extremely fit for a nation
by shopkeepers. Such statesmen, and s
of fancying that they will find some ad
and treasure of their fellow-citizens t
empire. Say to a shopkeeper, buy me a
buy my clothes at your shop, even th
dearer than what I can have them for a
find him very forward to embrace your p
person buy you such an estate, the shop
your benefactor if he would enjoin yo
shop. England purchased from some of
selves uneasy at home a great estate in
indeed, was very small, and amounted to
the different equipments which made th
the coast, and took a fictitious possession
good, and of great extent, and the cul
ground to work upon, and being for son
produce where they pleased, became in
thirty or forty years between 1620 and
a people that the shopkeepers and othe
secure to themselves the monopoly of thei
therefore, that they had paid any part o
or of the subsequent expenses of improv
liament that the cultivators of America
to their shop; first, for buying all the
Europe; and secondly, for selling all su

* 'History of West Indies.'

those traders might find it convenient to buy,—for they did not find it convenient to buy every part of it. Some parts of it imported into England might have interfered with some of the trades which they themselves carried on at home. Those particular parts of it, therefore, they were willing that the colonists should sell where they could—the further off the better; and upon that account proposed that their market should be confined to the countries south of Cape Finisterre. A clause in the famous Act of Navigation established this truly shopkeeper proposal into a law.

"The maintenance of this monopoly has hitherto been the principal, or, more properly, perhaps, the sole end and purpose of the dominion which Great Britain assumes over her colonies. In the exclusive trade, it is supposed, consists the great advantage of provinces which have never yet afforded either revenue or military force for the support of the civil Government, or the defence of the mother-country. The monopoly is the principal badge of their dependency, and it is the sole fruit which has hitherto been gathered from that dependency. Whatever expense Great Britain has hitherto laid out in maintaining this dependency, has really been laid out in order to support this monopoly." *

In order to reconcile our colonists to the "badge of their dependency" thus fastened upon them, the legislature of England has sought to give them compensation at the expense of the producers in other countries and the consumers in this, by means of differential duties that admitted the productions of our colonies at lower rates than the same productions brought from other quarters. Every real benefit thus imparted to the colonist must be at the expense of the people at home; first, because of the higher price which we pay for the colonial articles, and without which higher price there could manifestly be no advantage to the colonist; and further, because of the retaliatory measures to which this system is sure to give rise on the part of countries whose produce is thus placed at disadvantage in our markets, and which measures of retaliation are levelled, not at the trade of our colonies, which indeed they cannot reach, but against that of the mother-country.

The amount of injury sustained from this last-named cause cannot well be made the subject of calculation; but some idea may be formed of the ruinous effect of differential duties upon the expenditure of this nation, by showing the result produced in one year by the prohibitory duty upon a single article of colonial production—sugar. A statement to this effect will be found in this volume (page 547), where it is shown that we paid for the quantity of sugar used in 1840 more than 5,000,000*l.* sterling beyond what would have been paid for the same

* 'Wealth of Nations,' book iv., chap. vii.

quantity, irrespective of duties, by any other people of Europe. The total value of our manufactures exported in that year to our sugar colonies was under 4,000,000*l.*, so that the nation would have gained a million of money in that one year by following the true principle of buying in the cheapest market, even though we had made the sugar-growers a present of all the goods which they took from us.

It must be idle to suppose that colonists depend for their existence and progress upon such preferences. Unless prevented through the interference of legislative restrictions, they will certainly be able to apply their industry in some profitable channel. The very fact of their existence indicates that the inhabitants of colonies are in possession of advantages, whether of soil or climate, greater than are afforded by the country whence they have emigrated; and it must be reckoned among the evils produced by differential or *protective* duties, that they divert capital and industry from more profitable into less profitable, and sometimes even into hurtful, branches of employment.

It is not necessary here to enlarge upon this topic. Enough has been said to show that it is not by means of commercial restrictions and monopolies that colonies can be made valuable. Emancipate your colonies from all the shackles with which your *shopkeeping* spirit has loaded them; let them be free to adopt such commercial regulations as each may find best suited to its circumstances, and you may then safely proceed to emancipate yourselves from the countervailing shackles you have imposed upon your own commerce. Thenceforward your trade with your foreign possessions will be truly profitable to the nation. The settlers with whom it is carried on will have taken with them, or will have inherited from their fathers, a taste for the manufactures of the old country; and as they will for the most part be unable themselves to produce those manufactures, they will have every inducement to buy them from their countrymen rather than resort to foreign markets for a supply. That England, which boasts of its power of competing successfully with the whole world in so many branches of manufacture, should have thought it necessary to force her goods by fiscal regulations upon people who had already the strongest inducements to trade with her, seems such an absurdity that one is at a loss to imagine how it could ever have been conceived. Such a course of legislation was not simply useless, it was positively mischievous, by interfering with the natural rights of the colonists, and inducing the feeling that there could be a diversity of interest between themselves and the parent country.

One principal advantage which a State may fairly and properly derive from colonial possessions is the field which they offer for profitable enterprise to its subjects. Without admitting that under an enlightened system of legislation there would be an imperative necessity for sending forth our additional numbers, the advantage of their thus going forth

cannot be denied; nor will it be questioned that the inducements to that step would be far greater than they ever yet have been, if, in leaving the home of their birth for that of their adoption, they were not made practically to feel that they forfeit some of their privileges as citizens, and come in some sort to be viewed in the light of foreigners or strangers. One of the wisest sentiments ever uttered in Parliament on the subject of the government of colonies, was that delivered in the session of 1842 by Sir Robert Peel, to the effect that colonies should as far as possible be treated as though they were integral parts of the kingdom. If this sentiment was carried into practice, no State need ever fear that its colonies would seek to shake off its supremacy; such a course would then be quite as improbable as that the parent State itself should seek the dismemberment.

To bring about this state of things something more is wanted than enlightened opinions. It is necessary, also, that the government of the colonies should be administered by men who have a perfect knowledge of their condition, and wants, and capabilities. Unfortunately the system of government established in England is adverse to this end. Any man, however high his intellectual capacity, and however extensive his attainments, would be unable to fulfil those conditions until he should have acquired the experience of years devoted to the task; and it has so happened that, with the exception of the analogous office of President of the Board of Control, the ministry of the colonies has, during the present century, been changed more frequently than any other of the great offices of state. There were during forty years eighteen Secretaries of State for this department, one of whom, Earl Bathurst, held the seals for fifteen years, so that the average tenure of the remaining seventeen was under eighteen months. On the occurrence of each of these changes the whole system of our colonial policy has been liable to alteration; although, if there be one department of Government which more than any other requires to be conducted upon fixed principles, assuredly it must be that to which are confided the variety of interests involved in the colonial dependencies of the kingdom, the inhabitants of which have no voice in the national councils.

Under such a system it would be unreasonable to expect anything like consistency of action. At the same time it is necessary, in order to preserve harmony between the several branches of the general government of the country, that the colonial minister should be a member of the cabinet, and therefore subject to removal from office. How then is it possible to find a remedy for the evil? A plan to this end has been proposed, which seems to offer considerable hope of success; it is this:—

Let there be appointed a permanent colonial council, the members of which body shall be chosen, not from party considerations, but for their knowledge of colonial interests and their acquaintance with the science

of Government. The general accordance of this council with the policy of the administration would be secured by the nomination of a chief councillor, who might, as now, have the dignity of a Secretary of State and a seat in the cabinet, while the colonists would be secured against any capricious or ill-considered changes on his part by the interposition of a majority of the council. It would add greatly to the efficiency of this body, and in other ways would be advantageous, if a large proportion of the members of the council should be chosen from among persons whose fitness for performing the duties of the office has been evinced by ability previously shown in the more important of our colonies. A body thus constituted would prove a bond of union between the colonies and the parent State, through personal confidence on the one hand and local attachments on the other. A future seat in this council would prove an object of honourable ambition; and for each one who could succeed in its attainment there would be many led by hope to undertake studies and to make exertions whereby to prove their fitness for the honour, and who could expect to succeed only through the good opinion of their brother colonists and the home government, obtained as the consequence of talent and public usefulness.

It can hardly be said that this plan is without a precedent in our own time and country. The government of the affairs of our Indian empire by a Court of Directors, consisting in great part of military men and civilians, whose fitness for the office has been gained by experience in the country they are called on to govern, controlled too by a responsible minister of the Crown, is a case as nearly analogous as possible to that under consideration; and the success which has generally attended their government should give hope for the favourable working of a permanent colonial council.

The advantages, to a State possessing colonies, which have hitherto been enumerated, are all of an economical description. There remain to be noticed the political advantages which they offer. These are of two kinds—positive and negative. The positive advantages obviously reside in the additions which such possessions make to the power and resources of the parent State; and the capacity for affording those additions never can be fully developed except under an enlightened system of government. So long as, with the design of profiting some particular interests at home, their trade shall be shackled, and the direction of their industry controlled; so long as their offices of emolument and honour shall be filled with a view to party patronage, and without duly considering the fitness of persons appointed; and so long as the management of their highest interests shall be intrusted to hands continually changing, we may be certain that colonies will not fulfil the beneficial ends which they are calculated to secure. But when the sentiment already alluded to, of placing dependencies upon a footing of perfect

equality with the parent country, shall be carried into practical operation; when Canada and Jamaica shall, in every way that is possible, be considered and treated as Yorkshire or Lancashire is treated, they will be placed in the condition equally with those counties, of adding to our power. Nor does there seem to be any insurmountable difficulty to the adoption of such a course. The chief step towards its accomplishment will be attained whenever its wisdom shall be practically recognised by the legislative and the executive Government—the will to admit our dependencies to a full participation of the privileges, commercial and political, which are enjoyed by the inhabitants of these islands, must at once bind our colonists to us by the strongest of all ties, and lead to their increasing prosperity. The facilities for such a system are daily becoming greater through the extension of steam navigation, whereby distance is practically and importantly lessened for every purpose of moral, political, and commercial intercourse.

The negative advantages offered to a State by the possession of its colonies consist in this—that their power and resources cannot be rendered available against it. This will be fully understood if we reflect upon the consequences that might result to England from the acquisition by the United States of America of the provinces of Nova Scotia and New Brunswick. At present these possessions yield no direct revenue to the parent State; they provide, it is true, a few posts of profit, the bestowal of which may in a trifling degree be of advantage to the minister of the day; but, on the other hand, one of them has been in great part the cause of an ill-judged fiscal preference which has long acted to our injury by limiting our exchanges with the timber-producing countries of Europe, while the premium thus offered to the lumberers of New Brunswick has retarded the development of its resources in more important branches of industry. It can hardly be said that England has hitherto drawn any *positive* advantages from the possession of these provinces, if we place out of view the convenience afforded during periods of war by the harbour of Halifax; but the *negative* advantages from them are evident if we consider that the United States of America are greatly deficient in good harbours on the Atlantic coast, while Nova Scotia possesses, in addition to the magnificent harbour of Halifax, eleven ports between it and Cape Canso, with sufficient depth of water for the largest ships of war, besides fourteen other harbours capable of receiving merchant vessels; and although New Brunswick is not equally well provided in this respect, its coast furnishes several safe and capacious harbours, including those of St. John and Miramichi, with the further advantage of their greater proximity to Europe. In the unhappy event of a war breaking out between the two countries, the possession of these harbours by America would furnish her with means of annoyance to our commerce from national vessels and privateers, the mag-

nitude of which is hardly calculable. The continued possession of these provinces is therefore a matter of very deep importance to England, even though they should be incapable of imparting to us—and this is very far from being the case—any positive advantage whatever. Such continued possession is, in the mean time, itself an additional guarantee for the preservation of peace, through the means of annoyance in war which they would afford in our hands, and which would be far greater than their possession would impart to America by reason of the proximity to her great Atlantic cities.

CHAPTER II.

DEPENDENCIES IN EUROPE.

GIBRALTAR: its Population, Trade, and Shipping. MALTA: its Importance as a Military and Naval Station—Its Area, Population, Trade, Revenues, and Grain Monopoly—Restriction against Printing—Abolition of those Monopolies—Agricultural Produce—Shipping. IONIAN ISLANDS: their Constitution, Area, Population, Trade, Shipping, Exports, Manufactures, and Productions—Education. HELIGOLAND: Advantages of its Position—Former Importance as a Trading Depôt during the War.

THE dependencies of England in Europe, none of which can properly be considered colonies, are—

Gibraltar;
Malta, and its dependency, Gozo;
The Ionian Islands, viz.,
- Corfu,
- Cephalonia,
- Zante,
- Santa Maura,
- Ithaca,
- Cerigo,
- Paxo; and

Heligoland.

The first of these is chiefly valuable as a military station, in which respect its geographical position at the entrance of the Mediterranean gives it very great importance. In point of territory it is wholly insignificant, comprising an area of only $1\frac{3}{4}$ square miles, or 1120 acres. Its population, in 1834, was as follows:—

	Males.	Females.	Total.
British subjects	4,812	5,310	10,122
Aliens and resident strangers . .	..	..	4,886
		Total . .	15,008

There were among these persons 1031 employed in commerce, chiefly a smuggling trade, fostered by the anti-commercial system pursued in Spain, and which would doubtless cease with the relaxation of that system. The shipments of British manufactures from the United Kingdom to this station, in each of the years from 1827 to 1849, were of the following value:—

Years.	£.	Years.	£.	Years.	£.
1827	1,045,266	1835	602,580	1843	1,176,737
1828	1,038,925	1836	756,411	1844	1,049,567
1829	504,163	1837	906,155	1845	768,973
1830	292,760	1838	894,096	1846	605,693
1831	367,285	1839	1,170,702	1847	466,845
1832	461,470	1840	1,111,176	1848	750,257
1833	385,460	1841	1,053,367	1849	533,481
1834	460,719	1842	937,719		

The great bulk of the shipments consist of cotton, linen and woollen goods; the value of these goods in the last ten years of the series was—

	1840	1841	1842	1843	1844
	£.	£.	£.	£.	£.
Cotton Goods .	635,821	622,875	657,505	822,070	723,927
Linen Goods. .	224,061	199,616	71,615	104,122	75,815
Woollen Goods .	97,092	97,341	85,336	109,731	118,923
Total . .	956,974	919,832	814,456	1,035,923	918,665

	1845	1846	1847	1848	1849
	£.	£.	£.	£.	£.
Cotton Goods .	596,857	398,293	277,340	551,323	344,719
Linen Goods. .	47,729	35,021	28,585	36,875	36,648
Woollen Goods .	75,044	61,095	47,141	56,655	43,362
Total . .	719,630	494,409	353,066	644,853	424,729

A large quantity of tobacco is likewise shipped to this depôt, nearly all of which is fraudulently introduced into Spain.

Gibraltar was taken by us in 1704, and has since remained subject to the British Crown.

The shipping employed in the trade between the United Kingdom and Gibraltar, in each year from 1832 to 1849, was as under:—

Years.	INWARDS.		OUTWARDS.	
	Ships.	Tons.	Ships.	Tons.
1832	16	2,257	162	22,031
1833	22	3,516	181	25,289
1834	28	3,720	100	12,885
1835	45	5,601	131	54,971
1836	56	8,063	166	21,878
1837	55	10,299	199	30,911
1838	79	20,375	248	44,510
1839	117	25,920	260	43,665
1840	101	33,099	280	45,450
1841	100	23,314	261	47,007
1842	81	20,602	258	44,690
1843	130	24,455	249	43,219
1844	85	20,074	260	45,351
1845	82	18,221	209	37,121
1846	72	14,523	216	35,074
1847	50	11,623	196	32,861
1848	52	14,484	188	33,959
1849	54	12,457	230	37,681

Malta also is chiefly valuable as a military possession, and is the head-quarters of the British naval force stationed in the Mediterranean. The island was taken by us from the French in September, 1800, and by the tenth article of the Treaty of Amiens was to be delivered up to the Knights of the order of St. John of Jerusalem; but war again breaking out before the cession had been completed, this article of the treaty was left unfulfilled, and Malta has since continued in the possession of the British.

The area of Malta is ninety-five square miles, and of Gozo twenty-seven square miles. The population, in 1839, was—

	MALTA.			GOZO.		
	Males.	Females.	Total.	Males.	Females.	Total.
Natives	45,698	49,893	95,591	8,144	8,305	16,449
British residents	1,315	799	2,114	10	13	23
Aliens	3,702	959	4,661	..	..	..
Queen's troops, with their followers	2,458	632	3,090	..	..	..
	53,173	52,283	105,456	8,154	8,318	16,472

Total Population,—Males	. . .	61,327
„ Females	. . .	60,601
Total	. .	121,928

The exports of British manufactures to these islands, in each of the years from 1827 to 1849, were of the following value:—

Years.	£.	Years.	£.	Years.	£.
1827	200,949	1835	136,925	1843	224,546
1828	239,458	1836	143,015	1844	200,009
1829	224,010	1837	103,680	1845	183,065
1830	189,135	1838	226,040	1846	255,033
1831	134,519	1839	125,338	1847	195,836
1832	96,994	1840	166,545	1848	379,467
1833	135,438	1841	223,734	1849	337,744
1834	242,636	1842	289,304		

The revenue of the government of Malta, derived from various sources, was as follows in 1837, stated in round numbers:—

	£.
Rents of Crown lands	23,000
Small internal taxes—chiefly licenses for exercising trades—a tax on the transfer of real property, and auction duty	2,400
Fees of court and government offices, postage of letters, receipts of government printing-office, fines, &c.	5,200
Duties on imports, tonnage and quarantine dues	65,000
	£95,600

Of the 65,000*l.* Customs' duties, 35,000*l.* arose from the import of grain. Under the government of the Knights of St. John, the former rulers of Malta, the inhabitants were furnished with grain and other

articles of food by a corporate body, or *università*, which had the monopoly of the commodities in which it dealt, and fixed the prices on them in the island. This system was continued by the British Government, so far as respects the price of grain, until 1822, the management of the purchases and sales having been transferred in 1818 from the *università* to a body called Commissioners of the Board of Supply. This body was suppressed in 1822, when the commerce in grain was thrown open upon the payment of a fixed duty, and a new department of government was created, called the Grain Department, charged with buying and keeping a stock of grain, in order to guard against scarcity and high prices. In 1824 a graduated scale of duties, varying monthly with the prices, was substituted for the fixed duty of 1822. In the beginning of 1837 the system of keeping a stock of grain was abandoned by the Government, and the supply of the island was opened entirely to private enterprise. The quantity required every year for the supply of the island is about 73,000 salms, or quarters, so that the duty is equal to nearly 10*s.* per quarter.

The "sliding scale" of duties on wheat, established in December, 1832, and continued till October, 1837, was as under:—

When the average price of foreign wheat per salm (or quarter) was—	Duty. s.	d.
At or under 25*s.*	12	0
Above 25*s.* and not exceeding 30*s.*	11	0
„ 30 „ 35	10	0
„ 35 „ 40	9	0
„ 40 „ 45	8	0
„ 45 „ 50	7	0
„ 50 „ 55	6	0
„ 55 „ 60	5	0
„ 60 „ 65	3	0
„ 65	1	0

The *average* rate of duty received under this scale, during four years, 1833 to 1836, was 10*s.* 3½*d.*; and the yearly average quantity taken for consumption was 57,981 salms, or quarters. The duty since October, 1837, has been fixed at 10*s.* per quarter.

Among the sources of Government revenue may be noticed "receipts of Government printing-office." This calls for some explanation. Up to the beginning of 1838, no person was allowed to exercise the trade of a printer, or to use a printing-press, without the license of the Government, which would grant no such license except to the Government Commissariat Department, to be used for the public service of that department, and to the Church Missionary Society, the society binding itself to submit everything printed by it for the approval of the Government, before publication. Two presses set up without the license, one in 1810, the other in 1827, were taken possession of by the Government. The carefulness of the Government as regards printing thus went far

beyond the strictest censorship, and amounted to an absolute monopoly. This system of Vandalism was abolished through the urgent recommendation of British Commissioners, who were sent in 1836 to inquire into various matters connected with the government of Malta.

Such a system was clearly indefensible upon every ground. As a matter of profit it was an absolute failure, the press having never earned its expenses, although the rate of charges made to the public was exorbitant. As an act of tyranny it was far less justifiable, and exposed the Government to much odium, while it gave a colour to surmises and imputations for which no real grounds existed. It hindered effectually the diffusion of knowledge, and tended to perpetuate the ignorance, and with it many mischievous prejudices, among the native population. The relaxation of this odious restriction has not hitherto been accompanied by any of the evils predicted by those who advocated its continuance.

The fixed civil and judicial establishments in Malta consisted, in 1838, of—

		£.	s.
24	English persons, with salaries amounting to . .	7,716	14
577	Maltese	25,845	18
		£33,562	12

The agricultural produce of the islands of Malta and Gozo, in 1839, and the area from which each description was raised, were as follows:—

Description.	Area in Acres.	Quantity produced.
Wheat	9,951	17,453 quarters.
Meslin	9,144	26,042 „
Barley	4,051	11,641 „
Pulse	3,206	7,614 „
Sesamum	493	488 „
Garden produce . .	4,354	125,816 cwts.
Cummin seed . . .	418	1,461 „
Cotton	10,898	32,602 „
Forage	7,594	208,778 bushels.
Pasture	4,607	
In crop . . .	54,716	
Uncultivated .	46,810	
Total .	101,526 Acres.	

The number of stock in the same year was—

Horses, mules, and asses . . .	4,447
Horned cattle	5,661
Sheep	8,851
Goats	2,935

The number and tonnage of shipping employed in the trade between the United Kingdom and Malta, in each of the eighteen years ending with 1849, were as follows:—

Years.	INWARDS.		OUTWARDS.	
	Ships.	Tons.	Ships.	Tons.
1832	6	726	35	6,023
1833	8	850	62	9,450
1834	9	1,219	86	13,006
1835	7	1,003	70	11,128
1836	7	1,113	81	11,816
1837	11	1,889	77	14,996
1838	22	3,393	181	33,626
1839	33	5,667	152	30,835
1840	15	3,531	157	35,379
1841	76	10,628	277	53,885
1842	122	21,583	215	41,266
1843	17	2,216	166	32,721
1844	30	5,365	210	40,450
1845	72	11,817	227	45,176
1846	47	8,443	261	53,894
1847	204	37,343	374	75,977
1848	55	8,100	348	77,301
1849	55	10,224	255	53,802

At the opening of the present century, the seven islands known as the Ionian Isles were nominally under the joint protection of Turkey and Russia, the latter power exercising, in effect, all the privileges of sovereignty over them. By the connivance of the Emperor Alexander, they soon passed under the dominion of France, but in the progress of the war then raging in Europe, the chief of them were taken by England. At the general peace in 1815 this country was constituted their protector, and the possessor of the British Crown has since been, in effect, sovereign of these islands also.

In 1817 a constitution was granted to these seven islands (collectively with other smaller islands, situated along the coast of Albania and the Morea, and which formerly belonged to the dominions of Venice), under the title of "The United States of the Ionian Islands." By this act the seat of Government was fixed in the capital of Corfu; the Greek religion was declared the established religion, but all other forms of Christian worship were protected. The civil government of the States was declared to be composed of "a legislative assembly, a senate, and a judicial authority." The members of the legislative assembly to be elected "from the body of noble electors," who must not follow any trade or business,—the senators to be elected out of the body of the legislative assembly,—and the judicial authority to be selected by the senate, and approved by the Lord High Commissioner of the protecting Sovereign. This last-named functionary is appointed by the British Government, and performs in all respects the duties of a viceroy or governor of a British colony. The Lord High Commissioner has always been a British-born subject. The legislative assembly consists of a president and thirty-nine members, and the senate of a president and five senators, the president being selected for appointment by the Lord High Commissioner.

The area and population, in 1840, of the seven islands were :—

ISLANDS.	Area in Square Miles.	POPULATION.				Grand Total.
		Native.			Aliens and Resident Strangers.	
		Males.	Females.	Total.		
Corfu	227	35,447	30,287	65,734	9,600	75,334
Cephalonia . .	311	34,746	28,638	63,384	1,252	64,636
Zante	160¾	21,773	18,180	39,953	946	40,899
Santa Maura . .	156	9,196	8,044	17,240	210	17,450
Ithaca	44	5,239	5,022	10,261	362	10,623
Cerigo	116	4,510	4,922	9,432	15	9,447
Paxo	26	2,520	2,292	4,812	148	4,960
	1,040¾	113,431	97,385	210,816	12,533	223,349

The declared value of British manufactures sent from the United Kingdom to these dependencies, during each of the years from 1827 to 1849, was as follows :—

Years.	£.	Years.	£.	Years.	£.
1827	37,196	1835	107,804	1843	127,598
1828	41,078	1836	104,123	1844	123,928
1829	30,465	1837	124,465	1845	200,612
1830	56,963	1838	96,100	1846	171,731
1831	50,883	1839	64,010	1847	143,426
1832	55,725	1840	89,204	1848	178,831
1833	38,915	1841	119,523	1849	165,805
1834	94,498	1842	83,600		

The number and tonnage of shipping employed in the trade between the United Kingdom and the Ionian Islands, during the same years, were :—

Years.	Entered Inwards.		Cleared Outwards.		Years.	Entered Inwards.		Cleared Outwards.	
	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.
1827	54	7,721	21	3,974	1839	60	8,215	28	4,261
1828	52	7,642	33	5,149	1840	56	7,431	45	7,944
1829	38	5,326	25	4,532	1841	42	5,687	41	6,432
1830	32	4,304	38	5,513	1842	80	10,150	44	7,055
1831	60	8,482	36	5,530	1843	54	7,325	39	7,624
1832	48	6,694	23	3,143	1844	51	6,250	60	9,568
1833	61	8,076	30	4,125	1845	87	11,036	62	9,804
1834	62	8,469	42	5,753	1846	82	11,570	60	8,991
1835	60	8,896	42	6,655	1847	100	13,101	87	11,276
1836	46	6,527	31	6,182	1848	83	10,874	76	12,169
1837	71	9,550	42	7,168	1849	80	10,565	68	14,204
1838	47	6,419	30	4,605					

The chief part of our exports to these islands consists of cotton goods and refined sugar. The imports are confined almost entirely to three articles, viz., currants, olive oil, and valonia.

A considerable trade is carried on between these islands and various ports in the Mediterranean. The tonnage, under various flags, that entered and cleared from the islands, in 1840, was as follows :—

	Inwards.	Outwards.
	Tons.	Tons.
Ionian (inter-insular traffic) .	121,777	125,412
British	29,232	32,243
Austrian	42,663	40,031
Russian	16,832	15,052
French	771	771
Neapolitan	5,971	5,230
Papal	720	504
Sardinian	4,136	4,341
Greek	46,250	39,972
Turkish	3,632	3,787
All others	4,037	4,130
	276,021	271,473

The principal exports in the same year (1840) consisted of—

668,711 gallons olive oil.
22,719,990 lbs. currants.
131,976 gallons wine.
1,139,503 lbs. of soap.

Some manufactures are carried on of common earth[redacted] silks, shawls, coarse linen, coarse woollen blankets, goat-h[redacted]s and sacking. The chief productions, besides the foregoing ar[redacted], are—wheat, maize, barley, oats, pulse, cotton, and flax.

The most productive branch of revenue is the export duty on oil and currants. The collections under these heads, in 1840, amounted to 71,765*l.* The duty on imports yielded 35,591*l.*; stamp duties, 13,481*l.* The total revenues for the year amounted to 157,625*l.*, and the expenditure was 159,293*l.*, of which sum 73,221*l.* was the cost of civil and judicial establishments. The charge defrayed out of the public purse for education was 10,550*l.*; the hospitals cost 8210*l.*, and 17,117*l.* were expended in maintaining roads and bridges.

For the sum mentioned of 10,550*l.*, there were instructed, in 15[redacted] schools (including one university, one ecclesiastical seminary, one college, and one lyceum), 6527 scholars, of which number only 871 were females. In each of the islands there is a "secondary school," supported at the public expense, in which instruction is given in classical literature and modern languages, together with the more ordinary branches of tuition. In the chief town of each island there is a "central school," also at the public charge, in which the Lancasterian system of teaching is followed. The whole of the establishments for education to which contributions are made from the public purse are placed under the general direction of a "Commission for Public Instruction."

Heligoland, a small island in the North Sea, situated in 54° 11′ N. lat., and 7° 51′ E. long., came first into the possession of England in 1807, and was formally ceded to us at the peace of 1814. The island is about a mile long from north to south, and about a third of a mile wide. It is of some commercial utility from its position. The church

and lighthouse are useful as beacons; but its principal advantage consists in its being a rendezvous for pilots to vessels bound to the Elbe, the Eyder, and the Weser.

The possession of Heligoland offered much greater advantages at the time of its acquisition than it has since afforded. During the continuance of what was called the continental system, Heligoland was most usefully employed as a depôt for our manufactured goods and colonial produce, whence they could be introduced in small quantities, and as opportunities could be made, into the neighbouring continent. The extent to which this smuggling trade was carried on from this spot during the continuance of the Berlin and Milan decrees serves to show how hopeless it must be on the part of any Government to impose shackles upon commerce, when the profits to be derived from their evasion are considerable.

The island is thickly inhabited, its numbers being about 2200. The natives are of Frisian descent, and are a fine race of people. The climate is as mild as that of the midland counties of England, and the air is considered healthy. Within the last few years many invalids from Germany, Poland, and Russia, have resorted to it for the sake of its baths, which have acquired some degree of celebrity.

CHAPTER III.

DEPENDENCIES IN ASIA.

Origin and Progress of our Indian Empire—Circumstances under which its Growth has occurred—War of Aggression against Affghanistan; its sinister consequences—Trading Monopoly of the East India Company; its Relaxation and subsequent Abandonment—Amount of Trade between England and India—Quantities Imported of various Articles of Indian Produce—Great Commercial Resources of India—Probability of obtaining Supplies of Products hitherto procured from the Baltic; Wool, Flax, Tallow, Oil-seeds—Shipping—Trade of Bengal; of Madras; of Bombay—Public Revenues and Expenditure of British India—Public Debt—Constitution of Anglo-Indian Government—Board of Control; its unlimited Power—Successive Acquisitions of Territory in India—Wealth drawn Yearly from India to England. CEYLON: its Position and Acquisition—Population—Increased production of Coffee. COCOA-NUT TREE: its various Products and their Advantages. CINNAMON: Monopoly Abolished—Pearl Fishery—Gems and Metals—Manufactures—Trade. MAURITIUS: Population—Sugar Production—Trade with England and other Countries.

THE origin and progress of the British Empire in India is altogether a case without precedent in the history of nations. It would be interesting in a high degree, could we here trace that progress, so important in its consequences to our country; but a slight sketch of its more remarkable features is all that can be offered in this volume.

This eastern empire—now so vast in its extent and so important in all its circumstances, both social and political—originated in the subscriptions, trifling in amount, of a few private individuals, which were advanced for the prosecution of a mercantile adventure. This event took place in 1599. The capital then subscribed amounted to no more than 30,000*l.*, and was divided into 101 shares. At the end of the following year the adventurers obtained a royal charter, constituting them a corporation for fifteen years, and under which the management of the joint-stock was confided to twenty-four members chosen by the proprietors from among their own body, this committee being renewed by a fresh election every year.

The objects of the Company were at first strictly confined to commercial adventure, for the more effectual prosecution of which the capital was enlarged from time to time, until in 1618 it amounted to two millions. The Company had obtained in 1611 from the Mogul permission to establish factories at Surat, Ahmedabad, Cambaya, and Goga; in return for which indulgence it agreed to pay to him an export

duty of 3½ per cent. on the value of all its shipments. The authority under which the Company first exercised any of the functions of government was conveyed in 1624, by the permission of the King of England, to punish its servants, while abroad, either by civil or by martial law.

In 1661 a new charter was granted to the Company, whereby its privileges were confirmed, and authority was given to make peace with or war against any princes and people "not being Christians."

Bombay, which came into the hands of Charles the Second as part of the marriage portion of Catherine of Portugal, having proved a costly appendage to the Crown, was made over to the Company in 1688, with authority to exercise all the powers necessary for its defence and government; and this territory it holds of the Crown "in free and common soccage, as of the manor of East Greenwich, on the payment of the annual rent of ten pounds in gold on the 30th September in each year."

In 1664 an attack made by the chief of the Mahrattas on Surat was successfully resisted by the servants of the Company; and this was the first occasion upon which the Company was brought into hostile collision with any of the native powers of India.

Nearly a century elapsed from this time before any further territorial acquisitions were made by the Company. In 1757 Masulipatam was taken by its forces; and in the same year the Nabob of Bengal, Meer Jaffier, ceded to it a district in the vicinity of Calcutta called "the Twenty-four Pergunnahs;" four years later it obtained, by cession from Mahomed Ali, Nabob of the Carnatic, Madras, Fort St. David, some settlements in the Northern Circars, and a district near Madras called "the Seven Magans."

The growth of our political power in India up to this period is chiefly attributable to a grant made in 1652 by the Mogul of a licence to carry on an unlimited trade throughout the province of Bengal without the payment of any duties, and which licence was obtained at the insignificant cost of 3000 rupees, through the influence of a medical gentleman whose skill had been successfully employed at the court of the Mogul. A far more important step was gained when, on the 12th August, 1765, the Mogul Shah Allum granted to the Company the "dewanny," or collection of the revenue of Bengal, Bahar, and Orissa. This grant gave to the Company the virtual sovereignty of those extensive provinces. A further grant in the same year, by that sovereign, of the Northern Circars, was at first resisted on the part of the Nizam or Soubahdar of the Deccan, but was confirmed by that ruler on the 12th November, 1766, the Company agreeing to pay him seven lacs of rupees, or 70,000*l.* per annum,—which sum was redeemed in 1823 by the payment of 1,670,000*l.*

In 1775 Benares was ceded to the Company; and in August, 1778, Chandernagore, Masulipatam, and Carical, were taken by us from the French: later in the same year Pondicherry also surrendered to the English. In 1780 possession was taken of Ahmedabad, the capital of Guzerat, and a great part of the country of the Mahrattas. In 1782 the island of Salsette, near Bombay, was ceded to the Company. In 1792 one-half of his dominions was wrested from the Rajah of Mysore, and divided by Lord Cornwallis between the Company, the Nizam, and the Peishwa,—Malabar, Dindigul, Salem, and Baramahal falling to the lot of the former. On the fall of Seringapatam and the death of Tippoo Sultan, in 1799, the remaining Mysore territories were divided between the Nizam and the English; the southern portion was taken by the Company, whose territory was thus made to reach from shore to shore of the Deccan. In the following year the part of Mysore ceded to the Nizam came by treaty into our possession. Rohilcund and the Lower Dooab were obtained for the Company from the Soubahdar of Oude in 1801, and in 1802 Furruckabad was ceded to us by its ruler on receipt of a pension. In the following year we acquired by conquest Alighur, Delhi, Agra, Ahmednuggur, Boorhanpore, Gawilghur, Baroach, Powanghur, Manickpatam, and Kuttack; and in 1805 we acquired by cession some districts in Guzerat. Several years of peace then occurred, and there are no further conquests to record until 1815, when we obtained as the result of a successful war with the Nepaulese, the provinces of Kumaon and Gurwahl, with a territory, called the Terrace, at the foot of the Nepaul hills. In 1817 we gained from the Peishwa, Saugur, Huttah, and Darwar; and from the Guickwar we obtained Ahmedabad, the capital of Guzerat. In 1818 we got possession of the provinces of Kandeish, Ajmere, Poonah and North Konkun, and the South Mahratta country; and in 1820 further obtained the Southern Konkun. Early in 1824 war commenced between the English and the King of Ava; and at its termination two years after, we were confirmed in the possession of Arracan, Assam, Martaban, Tarvy, and Mergui, with the islands of Cheduba and Ramree.

By tracing on the map these various acquisitions of territory, it will be seen that nearly the whole of the peninsula of Hindostan has fallen under our dominion. Of the parts which are not in our immediate possession, all which by their geographical position are important to our security are virtually ours, their rulers being under British protection, or, in other words, under British direction and control. Our power is in effect "paramount over every native state from the Indus to Cape Cormorin, since no dispute can arise among any of those states which we are not by treaty authorized to arbitrate."

The growth of this empire has occurred not only without the design of those under whose rule it has been effected, but even in opposition to

their positive and oft-repeated injunctions to their servants in India. The most strenuous and repeated inhibition of all measures that might increase the territorial possessions of the East India Company has, on almost every occasion, been conveyed to its servants by the Court of Directors. In 1768 that Court enforced the necessity for confining the boundaries of their possessions within the limits of the provinces of Bengal, the Jaghire of Madras, and the island of Bombay. "If," they observed, "we once pass these bounds, we shall be led from one acquisition to another till we shall find no security but in the subjection of the whole, which, by dividing the British force, would lose us the whole, and end in our extirpation from Hindostan." The first part of this prediction has been fully verified, but its forebodings of evils do not appear likely to be accomplished, so long as we shall limit our desires to the possession of India itself, applying ourselves to call forth its resources by means fully within our power, and if we shall let our rule over its hundred millions of people be strictly in accordance with the spirit of justice and benevolence. With the exception of our short and successful but severe contests with the Ameers of Scinde and in the Punjab, India has been internally at peace during the unusually long period of more than twenty years, and should have been allowed to reap the advantages growing out of that condition; for by no employment or perversion of words can it be made to appear that our irruption into Affghanistan, undertaken for no Indian object, and prosecuted without the sanction of the recognised rulers of India—nay, for a long time, even without their knowledge—was an Indian war. Unhappily, however, India has to bear many of the evils of that mysterious invasion. Not the least among those evils is the waste of the Company's resources, whereby a check has been given to various plans for improving the communications, and calling forth the natural wealth of the country,—objects of the deepest importance, not to India only but to the whole British empire.

Up to the year 1814 the East India Company had a monopoly of the trade with India. In that year, on the renewal of its charter, this privilege was taken away, and the trade was thrown open to the individual enterprise of British merchants. The trade with China remained wholly in the hands of the Company until 1833, when its charter was last renewed, and the Company was restricted from carrying on, upon its own account, any commercial operations whatever. The result of these relaxations has been highly advantageous to the trade of England, as will appear from an examination of the following statement.

The value of the trade between the United Kingdom and India (not including China), in each year, from 1814 to 1832, was as follows:—

Years.	Imports. £.	Exports. £.
1814	8,643,275	1,874,690
1815	8,136,167	2,565,761
1816	6,423,785	2,589,455
1817	6,865,586	3,388,715
1818	9,206,147	3,572,164
1819	6,615,768	2,347,083
1820	5,958,526	3,037,911
1821	4,775,146	3,544,395
1822	3,713,663	3,444,443
1823	5,932,051	3,416,255
1824	5,605,100	3,496,578
1825	6,178,775	3,173,213
1826	6,730,926	3,471,552
1827	5,681,017	4,636,190
1828	7,065,180	4,467,673
1829	6,218,284	4,100,264
1830	5,679,071	4,087,311
1831	5,729,810	3,635,051
1832	6,337,098	3,750,286

No account has been furnished, since 1832, whereby the value of our importations from India can be shown. The declared value of British produce and manufactures exported to that quarter in each year *from* 1833 to 1849 has been :—

Years.	£.		Years.	£.
1833	3,495,301	(including China.)	1841	5,595,000
1834	2,578,569		1842	5,169,888
1835	3,192,692		1843	6,404,519
1836	4,285,829		1844	7,695,666
1837	3,612,975		1845	6,703,778
1838	3,876,196		1846	6,434,456
1839	4,478,607		1847	5,470,105
1840	6,023,192		1848	5,077,247
			1849	6,803,274

The quantities of some of the more important articles imported from India in those years have been :—

Years.	Coffee (including Ceylon).	Cotton Piece Goods	Lac Dye.	Shellac.	Hemp.	Hides.	Indigo.
	lbs.	Pieces.	lbs.	lbs.	Cwts.	Cwts.	lbs.
1833	5,734,820	220,333	299,405	770,544	34,008	29,337	6,315,529
1834	8,875,961	268,877	696,339	941,179	52,035	31,213	3,616,022
1835	5 182,856	223,580	528,490	1,179,899	40,854	41,964	3,878,404
1836	9,5 441	368,160	547 053	1,372,519	18,380	40,883	222,331
1837	9,806 123	414,450	990 560	2,194,938	168,386	40,714	5,721 554
1838	7 785,963	204,271	1,093 79	2,659,827	107,994	37,474	6,579,142
1839	9,820,550	348,446	1,166 562	3,176,167	138,301	63,533	4,654,226
1840	16 885 648	349,961	1,254,037	2,828,632	55,583	52,559	6,940,192
1841	896 624	139,472	1,221 308	3,244,352	72,469	86,044	7 456,617
1842	18 206,448	122,193	729,008	1,663,760	128,642	57,108	8,931 104
1843	13,8 6 045	103,097	1,172,336	3,101,840	227,812	108,487	5,930,064
1844	19,461,090	63,805	855,232	1,661,408	211,392	99,334	10,642,912
1845	21,637,481	213,601	1,438,752	2,510,144	273,963	116,654	9,845 920
1846	21,069,663	265,636	620,480	1,058,288	190,669	95,325	7 573 664
1847	20,668,956	184,372	880 0 2	902,528	185,788	94,794	7 802 928
1848	33,041,384	114,306	1 [illegible]	1,601,624	258,238	69,999	6,303,072
1849	30,144,638	[illegible]	1,[illegible]2	1,630,272	360,163	71,017	8,303,984

Years.	Pepper.	Rice.	Paddy.	Sago.	Saltpetre.	Linseed.	Silk.
	lbs.	Cwts.	Bushels.	Cwts.	Cwts.	Bushels.	lbs.
1833	7,298,925	179,370	8,012	7,665	143,434	2,163	989,619
1834	7,131,133	276,968	25,246	25,683	257,680	2,826	1,798,641
1835	2,807,014	233,041	29,426	19,101	194,119	127,416	1,105,367
1836	6,777,892	145,180	1,704	24,809	177,938	275,168	1,450,282
1837	4,150,534	352,834	17,451	15,288	222,606	126,532	1,298,042
1838	3,326,990	203,896	13,050	18,172	234,048	78,572	1,151,407
1839	9,030,898	419,319	8,938	20,673	272,429	163,958	1,388,070
1840	5,814,756	320,752	4,339	51,882	183,603	207,869	1,108,471
1841	4,784,497	397,535	1,336	75,847	261,552	199,322	1,175,314
1842	5,788,505	457,330	7,984	45,643	224,129	71,784	1,367,207
1843	3,636,226	364,689	4,536	23,216	345,822	64,024	1,197,610
1844	7,477,514	396,758	136	37,480	206,085	237,960	1,669,585
1845	9,042,944	514,485	96	42,003	307,703	194,624	1,723,326
1846	5,441,030	693,433	1,376	38,298	244,777	94,744	1,415,353
1847	4,455,247	1,237,211	16,224	53,259	192,205	125,568	1,083,204
1848	7,487,332	877,860	88	63,426	286,900	206,248	772,152
1849	3,913,611	875,510	..	83,540	286,746	209,136	1,804,327

Years.	Silk Goods.	Rum.	Sugar.	Tobacco.	Cotton.	Sheep's Wool.
	Pieces.	Gallons.	Cwts.	lbs.	lbs.	lbs.
1833	298,580	27	153,994	2,849	32,755,164	3,721
1834	375,238	537	101,997	6,570	32,920,865	67,763
1835	382,519	14,068	137,976	11,747	41,429,011	295,848
1836	332,402	38,139	171,758	44,498	75,949,845	1,086,393
1837	504,458	67,064	302,945	45,393	51,532,072	1,880,741
1838	493,803	53,309	474,100	206,103	40,217,734	1,897,266
1839	477,483	170,385	587,142	139,616	47,172,939	2,103,546
1840	556,591	311,968	498,730	256,476	77,011,839	2,441,370
1841	387,392	1,006,712	1,271,582	137,021	97,388,153	3,008,664
1842	334,555	670,779	946,086	76,490	92,972,609	4,246,083
1843	425,743	835,433	1,116,869	170,299	65,709,729	1,916,129
1844	543,473	333,702	1,108,671	44,272	88,639,776	2,765,853
1845	727,567	713,221	1,340,659	110,747	58,437,426	3,975,866
1846	607,736	830,596	1,470,663	81,727	34,540,143	4,570,581
1847	549,832	843,605	1,432,380	70,307	83,934,614	3,063,142
1848	298,972	922,123	1,370,374	63,126	84,101,961	5,997,435
1849	511,130	713,679	1,538,009	18,272	70,838,515	4,182,853

It will be seen, on comparing the quantities brought during the later years of the series with the earlier importations, how great an increase has been made in almost every article. Some important branches of the trade may be said to have been created since the year in which the charter of the East India Company was last renewed, and when its existence as a commercial body was made to cease altogether. Thus we find that linseed, rum, tobacco, and sheep's wool, which, previous to 1833, did not enter into the trade between India and England, have now become articles of considerable importance. The quantity of coffee is nearly trebled; but the greater part of this increase proceeds from the extension of the culture of coffee-trees in Ceylon, which followed upon the assimilation, in 1835, of the duties upon East India and West India coffee. The quantities of lac-dye and shellac, respectively, have been quadrupled. Hemp is more than doubled, and hides are increased threefold. Indigo has not undergone any material alteration: but the quantities of pepper and of rice are doubled. The sugar trade, from

being quite insignificant, has lately become one of the most important branches of commerce; and the supply of cotton has augmented with rapidity, being now nearly three times as great as it was in 1833.

Important as are these results, there is good reason for asserting that we shall hereafter arrive at a far more satisfactory condition as respects our Indian commerce. It would appear, from recent investigations, that we are now only beginning to appreciate at anything approaching to their just value the material resources of Hindostan. The idea of obtaining sheep's wool from British India would, a very few years ago, have been treated as an idle dream; and yet we see that in 1849 we imported thence, of that important material of manufacture, more than four millions of pounds. It has usually been held that cold climates are best suited to the production of fine wool, but this belief is seen to be erroneous. Dr. Forbes Royle justly remarks, that "fine-wool countries, such as Spain and Tibet, Australia, Van Diemen's Land, and the Cape of Good Hope, have rather dry climates, with a warm summer and a cold winter.* The coasts and plains of Bengal are not well suited to the production of wool, but "the table-land of the peninsula, beginning with the Neelgherrie hills, and proceeding along Mysore to the Deccan, Candeish, and Guzerat, presents large tracts of country affording a favourable climate, and abundant pastures for numerous flocks of sheep."† Marwar, Malwa, Rajpootana, Hurriana, and the province of Delhi, have natural pastures which support numerous herds of cattle and flocks of sheep. The wool of the latter is employed by the natives in making blankets of different degrees of fineness, which form a considerable article of commerce. The Himalaya mountains likewise support on their southern face a fine breed of sheep. The great pastoral countries of Cabool and Bokara might afford an almost unlimited supply of fine wool; and, although not the produce of British industry, its collection would prove an important branch of commerce to our merchants in the western districts of India, while payment for it would doubtless be made chiefly in British manufactures.

The rice of Bengal has hitherto been considered very inferior to that of America, and was unable to bear successful competition with it, even under a "protecting" duty of a penny halfpenny per pound; so that when it was proposed by the tariff of 1842 to reduce this "protection" by 8*s.* 6*d.* per cwt., or very nearly a penny per pound, it was confidently predicted that the trade would be annihilated. To avert this evil an intelligent and enterprising merchant forthwith took measures for improving the quality and appearance of the shipments from Bengal; and from the success that has attended his first efforts in that direction there is every reason to believe that, ere long, the rice of India will be in

* 'Essay on the Productive Resources of India,' page 163. † Ibid., page 140.

every respect equal in appearance to that of Carolina, and that it will command as high a price in our markets.

Some experiments on a respectable scale have recently been begun in Burdwan for the production of flax, the finer qualities of which are every year becoming more scarce and dear in Europe, and we may hope that this important material of manufacture will ere long be added to the list of our importations from India. Tallow has already been imported thence of so good a quality that it has realized within 10 per cent. of the price obtained for the finest St. Petersburg tallow. Besides these articles, India could furnish an almost unlimited supply of seeds, yielding oils of excellent quality for food, or light, or manufacturing processes; and considerable supplies of the finest timber may be procured from Oude and Goruckpore, the coast of Malabar, and the east coast of the Bay of Bengal.

By opening new channels of communication, and by improving such as already exist, the internal and external commerce of our Indian empire may be almost indefinitely increased, to the advantage of the millions who have been subjected to our sway by the sword, and to whom we owe this reparation for the miseries that have been inflicted by our conquest,—a reparation which must at the same time bring equal advantages to the United Kingdom in the increasing employment that must thus be afforded to our continually-multiplying artisans.

The number and tonnage of shipping employed in the trade between the United Kingdom and its dependencies in India in each year from 1833 to 1849 have been as follows:—

Years.	Inwards.		Outwards.		Years.	Inwards.		Outwards.	
	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.
1833	182	76,820	204	83,769	1842	430	191,378	397	202,101
1834	186	75,461	197	90,833	1843	441	209,600	374	168,672
1835	216	89,449	219	96,157	1844	440	197,979	470	220,350
1836	228	97,371	267	117,784	1845	412	189,573	437	222,004
1837	282	119,069	231	106,927	1846	380	190,318	339	187,856
1838	233	106,004	243	117,824	1847	464	236,562	415	221,990
1839	310	138,486	264	125,620	1848	408	216,351	332	195,251
1840	288	137,883	380	179,204	1849	398	225,636	418	231,937
1841	444	207,075	461	215,421					

A very large trade is carried on from the settlements in British India in addition to that with the United Kingdom. In each of the eight years 1834-5 to 1841-2, for which accounts have been prepared at the India House, the value of the imports and exports of each of the three presidencies was as follows:—

Years.	BENGAL.		MADRAS.		BOMBAY.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£.	£.	£.	£.	£.	£.
1834–35	2,772,227	4,519,812	1,023,832	1,669,133	3,858,426	3,485,783
1835–36	3,091,272	5,887,794	977,763	1,914,644	4,530,711	4,944,970
1836–37	3,549,957	7,123,410	1,059,575	2,210,785	4,694,400	5,784,990
1837–38	3,634,088	7,154,054	1,026,634	1,631,723	4,368,129	4,064,152
1838–39	3,847,252	7,158,431	1,074,711	1,897,185	4,647,097	4,424,520
1839–40	4,652,125	7,125,327	1,047,699	2,013,330	3,205,660	3,519,822
1840–41	5,757,074	8,362,998	1,137,686	2,009,204	4,966,329	5,165,558
1841–42	5,855,826	8,440,880	1,052,469	3,368,993	4,564,818	5,323,904

Years.	Total of three Presidencies.	
	Imports.	Exports.
	£.	£.
1834–35	7,654,485	9,674,728
1835–36	8,599 47	12,747,408
1836–37	9,303 932	15,119,185
1837–38	9,028 85	12,849,930
1838–39	9,569,06	13,480,136
1839–40	8,905,484	12,643,396
1840–41	861 088	15,516,607
1841–42	,473, 13	16,020,857

In the year ending 30th April, 1840, the shipping which entered and cleared from the port of Calcutta (exclusive of 425 British vessels of 157,475 tons which entered, and 437 vessels of 165,500 tons which cleared) was as follows:—

	Entered.		Cleared.	
	Ships.	Tons.	Ships.	Tons.
French . . .	4)	15,254	48	14,995
Dutch . . .	8	1,992	6	1,315
Spanish . . .	1	100	1	100
Bremen . . .	..	..	1	250
American . .	23	9,759	25	10,072
Arab	13	6,526	12	5,685
Chinese . . .	1	400	..	..
Dhoonies . . .	55	5,032	55	5,032
Total . .	150	39,063	148	37,449

The shipping that arrived at and departed from the port of Madras, in the year 1839-40, was as follows:—

	Entered.		Cleared.	
	Ships.	Tons.	Ships.	Tons.
British . . .	1,992	115,520	2,699	159,315
French . . .	25	5,944	42	10,307
Danish . . .	2	152	1	24
Dutch . . .	3	612	5	1,169
Portuguese . .	219	5,184	183	4,565
American . .	2	1,016	3	1,385
Arab	160	21,486	249	31,512
Native . . .	3,023	185,551	3,485	211,935
Total . .	5,426	335,465	6,667	420,212

The shipping, inwards and outwards, at Bombay, in the year ending 30th April, 1839, was:—

	Entered.		Cleared.	
	Ships.	Tons.	Ships.	Tons.
British . . .	228	97,043	228	100,095
French . . .	10	2,554	9	2,539
Portuguese . .	3	630	5	1,335
Dutch . . .	1	780	2	1,508
American . .	3	649	4	909
Swedish . . .	..	..	1	134
Total . .	245	101,656	249	106,520

The public revenues and the charges of government in India, in each of the eleven years from 1837-38 to 1847-48, were as follows:—

REVENUES.

Years.	Bengal and Agra.	Madras.	Bombay.	Total.	Extraordinary Receipt from Commercial Assets.
	£.	£.	£.	£.	£.
1837-38	12,586,629	4,517,271	2,426,779	19,530,679	718,705
1838-39	12,929,844	4,643,458	2,238,258	19,811,560	460,806
1839-40	11,937,412	4,665,374	2,255,934	18,858,720	31,033
1840-41	12,171,931	4,609,067	2,632,405	19,413,403	1,829
1841-42	11,133,718	3,833,504	1,867,610	16,834,832	4,100
1842-43	11,551,588	3,870,878	2,091,395	17,513,862	731
1843-44	12,292,195	3,842,130	2,183,176	18,317,501	1,206
1844-45	11,861,733	3,512,417	1,918,606	17,292,756	549
1845-46	12,174,338	3,589,212	2,047,380	17,810,930	1,489
1846-47	12,900,254	3,631,922	2,120,824	18,653,000	145
1847-48	11,947,924	3,638,589	1,990,394	17,576,907	195

CHARGES.

Years.	Allowances under Treaties with Native Princes.	Interest of Debt.	Charges exclusive of Interest of Debt.	Charges in England on Indian Account.	Total Charges in India and England.
	£.	£.	£.	£.	£.
1837-38	1,508,688	1,365,381	13,571,847	2,304,445	18,750,361
1838-39	1,620,101	1,388,506	14,505,715	2,615,465	20,129,787
1839-40	1,596,377	1,340,771	15,188,675	2,578,966	20,704,789
1840-41	1,609,400	1,481,787	15,742,359	2,625,776	21,459,322

Years	Bengal and Agra.	Madras.	Bombay.	Charges in England on Indian Account.*	Total Charges in India and England.
	£.	£.	£.	£.	£.
1841-42	9,991,901	3,580,792	2,128,077	2,834,786	18,535,556
1842-43	10,597,067	3,606,168	2,124,299	2,458,193	18,785,728
1843-44	10,796,959	3,565,411	2,351,062	2,944,073	19,657,505
1844-45	9,575,854	3,479,580	2,496,173	2,485,212	18,036,819
1845-46	10,170,220	3,523,598	2,569,910	3,044,067	19,307,795
1846-47	10,445,994	3,449,619	2,662,009	3,066,635	19,624,347
1847-48	10,546,030	3,373,445	2,553,286	3,016,072	19,488,893

* Including dividends to proprietors of India stock.

The first of these years exhibits a considerable surplus of revenue over expenditure (1,499,023*l.*), which in the following year was reduced to 142,579*l.*, doubtless by the preparations for the invasion of Cabool. In the following years there appear considerable deficiencies, the consequences of that ill-fated proceeding, and of other wars.

The revenues of the East India Company are mostly derived from the land. The other chief branches of revenue are customs, stamps, post-office, and the monopolies of salt and opium. The sums collected under these heads, at intervals of ten years, during the present century, have been as follows :—

	1809–10	1819–20	1829–30	1839–40
	£.	£.	£.	£.
Land revenues. .	10,050,142	11,516,193	12,018,354	12,480,854
Customs. . . .	795,425	1,303,927	1,540,662	1,166,751
Stamps	61,194	183,535	351,790	400,959
Post-office . . .	58,585	72,376	111,476	131,606
Salt monopoly . .	1,514,617	1,646,628	1,752,003	2,321,556
Opium monopoly . .	646,485	632,755	1,225,905	417,140

The remainder of the Company's revenue is drawn from marine and pilotage dues, mint duties, tributes and subsidies from native governments, revenues from Prince of Wales' Island and other eastern settlements, and from some unimportant miscellaneous sources.

The wars in which the East India Company has at various times been engaged have occasioned it to contract a large amount of debt. The amount of this at various periods, from 1815 to 1840, was as follows :—

	£.		£.
Registered debt of India on the 1st May, 1815	22,353,657	Registered debt of India on the 1st May, 1836	26,947,434
" " 1820	26,158,357	" " 1837	27,280,286
" " 1825	20,180,492	" " 1838	26,525,448
" " 1830	30,401,381	" " 1839	26,406,376
" " 1835	31,326,150	" " 1840	26,559,854

In addition to the "registered debt," the Company was, on 1st May, 1840, indebted for temporary loans and deposits for sums which raised the amount of its public debts bearing interest in India to 30,703,778*l.*, the yearly charge in respect of which was 1,447,453*l.* In addition to this burthen, it has bonds outstanding in England, and bearing interest, which on the 1st May, 1842, amounted to 1,756,582*l.*, the yearly interest on which amounted to 62,730*l.* The revenues of India are further chargeable with 630,000*l.* per annum, dividends to proprietors of East India stock, in addition to all the charges, ordinary and extraordinary, civil, military, and judicial, of the Indian empire.

The government of India is ostensibly confided to the hands of twenty-four gentlemen, chosen for that purpose by the proprietors from among their own body. Down to the year 1773, the Court of Directors thus

chosen were the uncontrolled sovereigns of British India; but in that year Parliament passed an Act, under which a Governor-General was appointed to reside in Bengal, and a supreme court of judicature was established, with judges appointed by the Crown, and in other ways the management of the Directors was brought under the *surveillance* of the State. In 1784 Mr. Pitt's India Bill was passed, which brought the government of India more completely within the power of the ministry by the establishment of a Board of Control for the Affairs of India, which Board is composed of six members selected by the Crown, to superintend the territorial concerns (since 1833 the only concerns) of the Company. The Governor-General of India, Presidents, and Members of Council, are under this Act appointed by the Directors, but subject to the approval of the Government; and the Commander-in-Chief of the army employed in India is chosen by the Crown without any interference on the part of the Directors. The power of recalling the Governor-General was subsequently granted to the Crown, so that his appointment is virtually and substantially the act of the ministry of the day.

The Board of Control, although by Act of Parliament it is composed of six members, is practically an office administered by one member, its President, who has a seat in the "cabinet," and is essentially a Secretary of State for the Indian Department. This important functionary is, in fact, the supreme governor of India, using the Court of Directors as the instruments of his will, and exercising, under the sanction of an Act of Parliament, a power over the destinies of that part of the British empire, greater far than the monarch can legally exert in that or any other quarter. It is the duty of the President of the Board of Control to inspect all letters passing to and from India, between the Directors and their servants, which have any connexion with territorial management or political relations; to alter, to amend, or to keep back despatches prepared by the Directors, and, if he shall see fit, to transmit orders to the functionaries of the Company in India, without the concurrence or even without the knowledge of the ostensible Governors of India. Any orders which he may send to the India House marked "secret and political" are seen only by three members of the Court of Directors, who form a "Committee of Secrecy," and who are sworn to secrecy, not only as regards the public at large, but even against their own colleagues. This secret committee is further bound, immediately and without question, to transmit those orders to India, and the servants of the Company are bound to put them in execution also without question or delay.

It must be superfluous to point out the manner and degree in which a power so unlimited in so despotic might be used to the injury, and even to the destruction, of the highest political interests of the country.

That the legislature should have clothed with it any person who might be selected by the Crown, exhibits a degree of confidence in the integrity of public men which is hardly to be justified upon any ground short of the belief that they are placed above and beyond the frailties and temptations that assail humanity.

The territories comprised within the sovereignty of the East India Company, and the dates of their acquisition, are seen by the following list:—

1688. Bombay.
1757. The twenty-four Pergunnahs.
1759. Masulipatam, &c.
1760. Burdwan, Midnapore, and Chittagong.
1765. Bengal, Behar, and Orissa.
1765. Jaghire near Madras.
1766. Northern Circars.
1775. Zamindary of Benares.
1776. Island of Salsette.
1778. Nagore.
1786. Pulo-Penang.
1788. Guntoor Circar.
1792. Malabar, Dindigul, Salem, &c.
1799. Coimbatore, Canara, Wynaad, and Tanjore.
1800. Nizam's acquisitions from Tippoo Sultan.
1801. Carnatic, Goruckpore, Lower Dooab, Bareilly, &c.
1802. Districts in Bundelcund.
1803. Kuttack, Balasore, Upper Dooab, Delhi, &c.
1805. Districts in Guzerat.
1815. Kumaon, and part of Nepaul.
1817. Saugur, Huttah, Darwar, &c.
1818. Candeish, Ajmere, districts on the Nerbudda, Sumbhulpore, Patna, Poonah, Konkun, Southern Maharatta Country.
1820. Lands in Southern Konkun.
1822. Districts in Bejapore, and Ahmednuggur.
1824. Island of Singapore.
1825. Malacca.
1826. Assam, Arracan, Tavoy, Ye, Tennasserim, &c.
1832. Cachar.
1834. Coorg, Loodhiana, and adjoining district.
1835. Jynteeah.
1839. Aden.
1840. Kurnoul.
1841. Jalown.
1843. Scinde.
1849. Punjab.

In addition to the political importance derived from these magnificent possessions, and to the advantages which they offer as a field for commercial enterprise, England draws a direct pecuniary gain from her Indian empire. A great part of the profits and savings of those of her European subjects who make choice of India as the field for their enterprise is transmitted to England, making constant additions to the capital which gives employment to her artisans. The dividends upon the stock of the East India Company paid in England, and which amount to 630,000*l.* per annum, are derived from the land revenues of India, and altogether it has been calculated that the tribute which India pours yearly into the lap of England is at least equal to three millions sterling —a large sum, but one which, in comparison with the resources of that immense and populous region, is wholly insignificant. There now appears but little ground for apprehending that the attention of the British authorities need be called away from the peaceful administration of its government, and under these circumstances it cannot be unreasonable to expect that the advantages of our rule may be rendered more apparent in future than they have been in past years, both to the natives of India, because of the security against violence and injustice which they may enjoy under it; and to England, because of the apparently

unlimited field for commercial prosperity which it offers, and of which we are now beginning only to suspect the extent.

The island of Ceylon, although placed in almost immediate contact with the continent of India, does not form any part of the dominions of the East India Company, but is in direct dependence on the Crown of England. It lies between 5° 54′ and 9° 50′ N. lat. and 79° 50′ and 82° 10′ E. long. Its length from north to south is 270 miles, and its breadth in the widest part 145 miles. Its area is about 24,700 square miles.

During our war with France, in 1782, we took possession of Trincomalee, on the coast, but it was soon after retaken by the French, and the sea-coast remained in the hands of the Dutch until 1796, when we dispossessed them. In 1798 we were involved in a quarrel with the native king, and took possession of his capital, which, however, we did not long retain at that time. We were obliged to content ourselves with possessing the maritime districts until 1815, when, the king of Candy being deposed by his subjects on account of his cruelties, we were allowed to take possession of the whole island. Some troubles followed; but since 1819 the British sway has remained unquestioned throughout the country.

The population of Ceylon in 1835 comprised the following numbers:—

	Males.	Females.	Total.
Whites	5,516	3,605	9,121
Free Blacks	626,465	568,017	1,194,482
Slaves	14,108	13,289	27,397
Aliens and resident strangers .	..	..	10,825
	646,089	584,911	1,241,825

The Asiatic or native population consists of four distinct races, viz., Beddahs or Veddahs, the aboriginal inhabitants, who live in a most primitive state, without clothes or houses, in the great forests, their food consisting of wild fruits and the produce of the chase. Singalese, descended from the Rajpoots of India; these occupy principally Candy and the south-west and south coasts of the island. Malabars, who abound on the north and east coasts; and Mussulman descendants of men from Upper India; these last are dispersed over the island. There are besides a few of various other races; Chinese, Javans, Malays, Caffres, some Parsee traders, and a considerable number of half-caste descendants from native mothers and European fathers; Portuguese, Dutch, and English. The Singalese are Buddhists, and the Malabars are Hindoos.

The island is but thinly inhabited. It is said to have been more populous formerly, and that the number has been continually declining during the last four or five centuries; but it does not clearly appear

upon what this belief is grounded. By far the largest proportion o the surface of the island is uncultivated and waste. There are a few natives who possess considerable estates in land, some as much as 1000 acres; but the law of inheritance has for the most part caused a minute subdivision of the soil to a degree but little favourable to its improvement. The English Government, which claims the proprietorship of all the waste lands, has of late years been disposing of locations by public sale, the object of the purchasers being chiefly the formation of coffee plantations. The quality of Ceylon coffee is very good, and the soil and climate greatly favour the productiveness of the plant. The advantage given to this product in 1835, by admitting Ceylon coffee to consumption in England at the moderate duty charged upon British plantation coffee, has greatly stimulated the production. Already the importations thence are very greatly augmented; but as the plant requires some years of growth before it comes into profitable bearing we may expect that future supplies from this island will be greater than have yet been brought forward.

The quantity of coffee imported into the United Kingdom from Ceylon in each year, from 1835 to 1849, has been as follows:—

Years.	lbs.	Years.	lbs.
1835	1,870,143	1843	9,515,619
1836	5,026,504	1844	14,971,965
1837	7,389,921	1845	16,657,239
1838	4,946,356	1846	17,735,406
1839	4,097,493	1847	27,190,024
1840	8,244,816	1848	30,521,810
1841	7,098,543	1849	35,640,958
1842	11,154,024		

The reduction of the consumption duty, in 1842, to 4*d.* per lb., has tended to stimulate production in Ceylon, at least up to the point of satisfying the increasing demands of our population, since the cost of growing and preparing this article of produce is not greater in Ceylon than in any of the foreign countries and settlements whence supplies could be drawn. The quantity of land adapted to the purpose is unlimited.

Another plant of growing importance to this island is the cocoa-nut tree. The numbers of those trees along the coast are reckoned by millions, each one of which produces from fifty to a hundred nuts in the year. Every part of this tree and of its product is capable of being turned to profitable account, and it yields its fruit at every period of the year—"the enclosed bud, the flower, the immature nut in all the different stages of its progress, and the ripe fruit, all appearing at the same moment on one tree in a continuous course of vegetation."

The flower-bud or *spatha* of this tree yields toddy, which, when fermented and distilled, furnishes arrack of the best quality. Another mode of treating this juice produces *jaggery*, a description of sugar,

which, although unfit for exportation, is well adapted for use by the native population. The fibrous husk in which the nut is enveloped is convertible into cordage and carpeting, and is applicable to a great variety of other purposes. The kernel of the nut is used as a nutritious and palatable food; and a large quantity of fixed oil, applicable to a great number of uses, is expressed from it. Large shipments of this oil are made from Ceylon to England, where it is used for illuminating purposes, and for conversion into candles and soap. The leaves of this tree are woven into mats, and are employed for the roofing of houses, being lighter than straw, and equally strong and lasting. The oil, when newly made, is used in the island for culinary purposes. Altogether, the cocoa-nut tree has been considered the most important vegetable production of the island.

A product of Ceylon, better known as such in Europe, to which quarter the great bulk of it is shipped, is cinnamon. The Dutch, when they had possession of Ceylon, reserved the trade in this spice as a Government monopoly, strictly prohibiting any person from trading in it, and sentencing to confiscation any ship on board of which there should be found more than twenty pounds of cinnamon, unless sent on board by authority of Government; and heavy fines were imposed for any quantity less than twenty pounds. The English adopted, and for some years after their conquest of the island, adhered to the system as thus established by the Dutch. A Government agent resided at Colombo for managing the trade, and under his direction all the cinnamon collected beyond the quantity that it was thought could be sold in Europe at a monopoly price was ordered by him to be burnt! This system was altered by the English Government in October, 1832, when the trade in cinnamon was declared free, save that it was subjected to a duty on exportation. The pearl fishery is a Government monopoly. The places and times where and when it is to be pursued, and the number of boats allowed to engage in it, are announced by advertisement. One-fourth part of the pearl oysters raised are the property of the divers; the remaining three-fourths are sold at public auction. The amount derived from this source of revenue averages about 14,000*l.* per annum; it has sometimes reached to nearly three times that sum; in nine years, from 1826 to 1834, it realized 145,000*l.*

Some valuable gems are found in Ceylon; among these the ruby and cat-eye are the best; topaz, sapphire, and crystal are also obtained. Iron is diffused over the greater part of the island; black oxide of manganese is found; and plumbago (carbonate of iron) is obtained in considerable quantity, and exported. Weaving gives employment to many persons. The articles made are handkerchiefs, table-cloths, napkins, towels, sail-cloth, and a coarse kind of cloth used for their dress by the natives. There are also many oil-mills in operation,

chiefly for pressing the coco-nut kernels. The island contains extensive forests, in which, besides the more ordinary descriptions of timber, the growth of those latitudes, there is a great variety and profusion of beautiful woods, well adapted for the use of the cabinet-maker.

Among the animals of Ceylon, most of those found on the opposite continent are native to the island. Elephants are numerous, and sometimes do great injury to the growing crops. Under the kings of Candy these animals were trained to perform the office of public executioners.

The trade of the United Kingdom with Ceylon is not distinguished in the Custom-house accounts from that to the continent of India. A trade is carried on with Bengal, to which presidency it exports betel-nuts, chank shells, cordage, cocoa-nuts, and various minor articles; while it imports from that quarter cotton piece goods, sugar, rice, wheat, and gunny bags.

Mauritius,* commonly known as The Mauritius, is an island in the Indian Ocean, about 120 miles north-east from the island of Bourbon, and four times that distance east of Madagascar. Its greatest length from north to south is forty miles, and its greatest breadth is thirty-two miles; its area is about 700 square miles. This island was discovered early in the sixteenth century by a Portuguese navigator; and in 1598 a Dutch admiral made a landing upon it, and gave it the name of Mauritius, in compliment to the then Prince of Orange. Its earliest inhabitants were pirates; but no serious attempt for its colonization was made until 1720, when it was occupied by some settlers from the French island of Bourbon. Its name was then changed for that of Isle of France, and the property in it was given by the King of France to the French East India Company. The island was fortunate in being early intrusted to the government of a very intelligent man, M. de la Bourdonnais, under whom it made great progress in cultivation.

Mauritius was taken by an English force in 1810: its possession was ratified to us at the peace of 1814, and it has since remained under the dominion of the crown of England.

The population in 1849 consisted of—

	Males.	Females.	Total.
Europeans and Africans . .	61,694	50,452	112,146
Indians and other emigrants .	50,281	8,454	58,735
Total . . .			170,881

In 1838 the people of African blood, who were then not wholly emancipated, were distinguished; they consisted of 53,230 persons (34,994 males and 18,236 females).

* Properly this island should be classed with British Possessions in Africa; it is more convenient, however, to place it in connexion with our Asiatic possessions.

The chief exportable produce of the island is sugar, the cultivation of which has been so profitable that the inhabitants are content to import nearly all their provisions in order to devote themselves more exclusively to sugar planting. This state of things is owing to the boon granted to the island in 1825, by admitting its produce to consumption in England at the same favourable rate of duty as was charged upon West India sugar. The following statement, showing the exports of sugar from Mauritius, in each year from 1820 to 1849, will show the effect of this measure in stimulating production :—

Years.	lbs.	Years.	lbs.	Years.	lbs.
1820	15,524,755	1830	67,926,692	1840	89,332,789
1821	20,410,053	1831	70,203,676	1841	86,505,825
1822	23,404,644	1832	73,594,894	1842	77,387,222
1823	27,400,887	1833	72,947,729	1843	59,802,636
1824	24,334,553	1834	76,817,365	1844	78,269,222
1825	21,793,766	1835	70,227,204	1845	94,384,197
1826	42,489,416	1836	69,547,778	1846	131,972,827
1827	40,619,254	1837	73,812,666	1847	124,466,044
1828	48,350,101	1838	78,351,782	1848	119,241,734
1829	58,431,538	1839	74,152,989	1849	138,754,665

The quantity of Mauritius sugar imported into the United Kingdom alone, in each year from 1838 to 1849, was as follows :—

Years.	lbs.	Years.	lbs.	Years.	lbs.
1838	67,874,128	1842	75,738,144	1846	94,662,064
1839	69,294,960	1843	53,381,440	1847	135,721,168
1840	61,040,784	1844	60,585,728	1848	99,268,176
1841	78,954,176	1845	80,218,096	1849	100,676,688

The number of acres planted with sugar cane, which in 1825 was 27,639, was increased in 1836 to 57,127, and in 1844 amounted to 73,863 acres.

The value of British produce and manufactures exported to Mauritius, in each year from 1827 to 1849, was—

Years.	£.	Years.	£.	Years.	£.
1827	195,713	1835	196,559	1843	258,016
1828	185,972	1836	260,855	1844	285,650
1829	205,558	1837	349,488	1845	345,059
1830	161,029	1838	467,342	1846	310,231
1831	148,475	1839	211,731	1847	223,563
1832	163,191	1840	325,812	1848	169,308
1833	83,424	1841	340,140	1849	234,022
1834	149,319	1842	244,920		

A considerable trade is carried on between this island and the British possessions in India, whence the imports are chiefly of grain, rice, and live stock. France still retains a great part of her trading connexion with Mauritius, one-eighth part in value of the total imports into the colony being from that country. The principal articles thus imported are wine, spirits, silk manufactures, apparel, and books. The payments both to France and India are almost wholly made in bills of exchange on England.

The shipping that entered and cleared from Port Louis, the harbour of any importance in the island, and which embraces al external trade, in each of the years from 1837 to 1839, and in 1 and 1849, was as follows:—

	1837				1838			
	Entered.		Cleared.		Entered.		Cleared	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	T
Great Britain . .	45	13,093	81	22,411	69	21,214	82	2
British Colonies . .	165	47,085	137	38,510	159	44,954	153	4
United States. . .	1	91	1	91	..	..	2	1
Foreign Countries .	243	47,958	201	34,530	264	54,411	203	3
	454	108,227	420	95,542	492	120,579	440	10

	1839				1844			
Great Britain . .	48	13,378	85	24,803	58	15,606	102	3
British Colonies . .	154	41,443	124	33,526	192	65,401	172	5
United States . .	4	1,306	1	522	8	2,977	..	
Foreign Countries .	206	39,981	177	31,648	159	30,539	129	2
	412	96,108	387	90,499	417	114,523	403	11

	1849			
	Entered.		Cleared.	
	Ships.	Tons.	Ships.	Tons.
Great Britain . .	63	21,045	133	44,676
British Colonies .	226	72,820	193	59,078
United States . .	4	1,588	1	230
Foreign Countries .	123	21,834	95	14,239
	416	117,287	427	118,223

CHAPTER IV.

SETTLEMENTS IN AUSTRALASIA.

General Description—Times of Settlement. NEW SOUTH WALES: Population—Disparity of Sexes—Immigrants—Sales of Waste Lands—"Bounty Emigrants"—Agricultural Emigrants—Convicts—Revenues—Productions—Wool—Whale Fishery—Trade—Shipping. VAN DIEMEN'S LAND: Population—Disparity of Sexes—Productions—Whale Fishery—Export of Wool—Manufactures, &c.—Trade—Shipping. WESTERN AUSTRALIA: Population—Shipping—Stock. SOUTH AUSTRALIA: Population—Sales of Public Lands. NEW ZEALAND: Population—Trade—Shipping.

THE settlements under the dominion of England in Australasia are, in the strictest acceptation of the term, colonies. They are formed on the islands of New Holland, Van Diemen's Land, and Norfolk Island. The first-named of these islands extends between 10° and 39° S. lat. and 115° and 153° E. long. Its extreme length from east to west is (in round numbers) 2400 miles, and its extreme breadth from north to south is 1700 miles. The mean breadth is computed at 1400 miles, which would give for the area of the island 3,360,000 square miles; being more than twenty-eight times the area of Great Britain and Ireland.

The British flag was first raised on this island in January, 1788; and the rapidity with which the colony of New South Wales has advanced may be inferred from the fact, that in less than half a century from that date land was sold in the town of Sydney, the capital, at the rate of 20,000*l.* per acre. This settlement is on the east coast of the island. It extends coastwise about 500 miles, between 28 and 36° S. lat.; its boundary inland is undefined.

The settlement of Western Australia, or Swan River, was begun in August, 1829, and in the following January thirty-nine locations had been effected. The number of resident inhabitants was then 850, and non-residents 440. This settlement includes all of the island of New Holland which lies west of 129° of E. long. It is therefore in length from north to south about 1300 miles, and in mean breadth from east to west about 800 miles.

Another settlement on this great island, called, from its position, South Australia, was formed under the provisions of an Act of Parliament in 1836. The limits of this province extend from the 132nd to

the 141st degree of east longitude, and from the south coast, including the adjacent islands, northwards to the tropic of Capricorn. Its area is therefore nearly 200,000,000 acres.

Van Diemen's Land, or Tasmania, is divided from the south-east coast of New Holland by Bass's Strait. It lies between 40° 40′ and 43° 40′ S. lat., and between 144° 40′ and 148° 20′ E. long. Its greatest length from north-west to south-east is 210 miles, and its greatest breadth from east to west is 190 miles; its mean breadth is about 120 miles, and its area about 25,000 square miles.

Norfolk Island, lying off the east coast of New Holland at the distance of about 700 miles, was first colonised in 1791 by the then governor of New South Wales, his object being to grow supplies for the markets of Sydney, the soil being very fertile. It is now used solely as a receptacle or prison for the worst description of male convicts, who are sent thither from New South Wales to work out the remainder of their lives in chains.

An account of the population of the colony of New South Wales was taken in 1828, and declared to consist of—

	Males.	Females.	Total.
Free immigrants . .	2,846	1,827	4,673
Born in colony . . .	4,473	4,254	8,727
Free by servitude . .	5,302	1,342	6,644
Pardoned	835	51	886
Convicts	14,155	1,513	15,668
Total . .	27,611	8,987	36,598

Between 1828 and 1833 there arrived in the colony—

Free settlers . . .	6,021
Convicts	16,792

and the excess in the number of births beyond deaths, according to registers then not very carefully kept, was in the same five years 1254.

In 1833 another census was taken, and the numbers found were:—

	Males.	Females.	Total.
Free under 12 years old .	5,256	4,931	10,187
„ above 12 „ .	17,542	8,521	26,063
Convicts	21,846	2,698	24,544
Total . .	44,644	16,150	60,794

A census was taken in March, 1841, and exhibited the following results:—

	Males.	Females.	Total.
Arrived free	30,745	22,158	52,903
Born in the colony	14,819	14,622	29,441
Free by servitude and pardon .	15,760	3,637	19,397
Bond, viz.:—			
Holding tickets of leave . .	5,843	316	6,159
In Government employment .	6,658	979	7,637
In private assignment . . .	11,343	1,838	13,181
Total . . .	85,168	43,550	128,718

The great disparity between the sexes observable at all these periods has been caused by the peculiar nature of the colony as a penal settlement, the great bulk of those sent out of the United Kingdom for their misdeeds being males. Every year, now that the arrival of convicts has ceased, this disparity becomes less through natural causes. It will be seen from the foregoing statements that the proportion of females to the whole population has been continually increasing; it was—

In 1828	24·55 per cent.	In 1841	33·83 per cent.
1833	26·56 „	1844	38·66 „

The disparity of the sexes does not apply to the population under twenty-one years of age. The numbers of males and females under that age in 1841 were,—males 22,691, females 21,294,—being in the proportion of 5159 males to 4841 females. The proportions living at those ages in England and Wales were, in 1821, 5144 males to 4856 females, and in 1841, 5112 males to 4888 females, showing a deficiency of young females in New South Wales, as compared with this country, of only 15 in 10,000 of both sexes in 1821, and 47 in that number in 1841.

On the 31st December, 1844, it was computed that the population was increased by immigration and by the number of births beyond that of deaths, to 173,377, viz. :—

Males—Adults	74,912	
Children under 14 years .	31,397	
		106,309
Females—Adults	36,170	
Children under 14 years .	30,898	
		67,068
Total . . .		173,377

A complete census was taken in March, 1846, when the numbers were found to be—

Males	114,769	
Females	74,840	
	189,609	

Of these there were—

Males—Adults	81,773	
Under 14 years	32,996	
		114,769
Females—Adults	42,448	
Under 14 years . . .	32,392	
		74,840
		189,609

According to a return presented to the House of Commons in July, 1850, the population of this colony at the end of 1848 amounted to—

Males	131,708	59·75 per cent.
Females	88,699	40·25 „
	220,407	100·

showing a constantly-lessening disparity between the sexes.

The number of immigrants who arrived in New South Wales a settlers, in each year from 1829 to 1840, was—

Years.	Men.	Women.	Children.	Total.
1829	306	113	145	564
1830	166	70	73	309
1831	185	98	174	457
1832	819	706	481	2,006
1833	838	1,146	701	2,685
1834	571	596	397	1,564
1835	551	644	233	1,428
1836	524	807	290	1,621
1837	1,769	1,138	1,368	4,275
1838	3,631	2,132	3,077	8,840
1839	4,095	3,090	3,324	10,509
1840	..	..	..	7,536
			Total . . .	41,794

The waste lands of the colony were formerly bestowed by the Crown as free grants to individual settlers, the conditions of their receiving such grants being, the possession of property within the colony, and the obligation to cultivate or improve the lands. Since 1831 not any more free grants have been made, and the land has been sold. The proceeds have been applied to defray the expenses of surveying and bringing the land to sale, to extend the blessings of civilization and protection to the aborigines, and to the payment of bounties on the conveyance of emigrants from the United Kingdom to New South Wales. In the ten years from 1832 to 1841 there were thus sold within the colony 1,923,631 acres of land, at prices varying from 5*s.* 4¾*d.* to 1*l.* 12*s.* 11*d.* per acre not reckoning in those prices the sales of town allotments; the average price obtained for country lands being about 7*s.* per acre. Out of the purchase money there was paid from the beginning of 1832 to September, 1842, the sum of 951,242*l.* as bounty to the owners of ships for the conveyance of emigrants to the colony. The part of this sum paid in 1841 was 327,106*l.*, including gratuities to the surgeons and officers of emigrant ships. In that year the great number of 19,523 men, women and children, were landed as bounty emigrants, and a further number of 3677 independent or unassisted settlers arrived in the colony, making a total of 23,200. The bounty emigrants consisted of—

7,183	males above 18 years old.				
7,599	females above 15 years.				
14,782	adults.				
152	males between	15	and	18	years.
929	„ „	7	„	15	„
816	females „	7	„	15	„
1,187	males „	1	„	7	„
1,065	females „	1	„	7	„
592	infants under 1 year old.				
19,523					

This great number of settlers were natives of various divisions of the United Kingdom, as under :—

ENGLAND AND WALES :—			IRELAND :—		
Northern counties of England	1,345		Ulster	4,218	
Southern and western counties	1,723		Leinster	2,596	
Midland counties	759		Connaught	1,236	
Eastern counties	648		Munster	5,294	
WALES	88				13,344
		4,563			
SCOTLAND :—			Total . . .		19,532
Northern counties	504				
Southern counties	1,112				
		1,616			

Of the adults there were 3425 married men, and 3396 married women ; the remaining 7961 were single. Among these adults—

8,643 could read and write;
2,961 could read only ; and
3,178 were without any degree of instruction.

It affords a strong proof of the extensive field for the employment of labour offered by this colony, that of all the number of persons old enough to work who arrived during 1841, only 46 remained without employment on the 1st of January, 1842; and that of 4163 adult "bounty emigrants" who landed in the first four months of 1842, only 30 were unemployed on the 14th of May in that year. This fact is the more deserving of notice, because the colony was at that time suffering a great degree of commercial depression.

Of the adult males who arrived in 1841, the very large proportion of 5149, or 7 out of 10, were agricultural labourers, as to whom the agent for emigration at Sydney remarks that complaints have reached him of their having proved for the most part "utterly ignorant of almost every branch of their business;" and he expresses regret that "so very few should have been selected from districts where agriculture is most successfully pursued, and where, consequently, the best husbandmen are to be found." It does not seem to have suggested itself to the mind of this gentleman that in such districts the farm servants would be placed in circumstances which render expatriation less needful or desirable than it is for the labouring population of less advanced parts of the kingdom.

The fund applicable to the employment of labour in New South Wales is now constantly and rapidly increasing. The Home Government has every year to pay nearly 300,000*l.* for the maintenance of the military and convict establishments of the colony; large sums are continually carried over for permanent investment by settlers, and the high rate of profit to be obtained has caused the transmission of other large sums by English capitalists for the establishment of banks and loan companies.

The number of convicts, chiefly males, that were landed in the colony in each year from 1828 to 1838 was—

Years.	Convicts.	Years.	Convicts.
1828	2,712	1835	3,602
1829	3,664	1836	3,823
1830	3,225	1837	3,425
1831	2,633	1838	3,073
1832	3,119		
1833	4,151	Total . .	36,588
1834	3,161		

The number of convicts in the colony on the 31st of December, 1844 was 19,175; the expenses attending them for superintendence, lodging and maintenance, amounted to 54,437*l.*

The public revenues of the colony have increased with an extraordinary rapidity. In 1826 they amounted to 72,230*l.*; in 1830, to 104,729*l.*; in 1833, to 164,063*l.*; in 1836, to 330,579*l.*; and in 1841 to 639,675*l.* In the three later years the amount was swelled by the proceeds of Crown lands sold to the respective sums of—

Years.	£.
1833	24,956
1836	126,458
1841	90,387

In 1844, mainly through the failure of this source of income, the public revenue of the colony was only 455,844*l.* In the following years the revenue again increased, and in 1848 amounted to 551,246*l.*

The chief revenue is derived from Customs' duties, and the principal article thus subjected to taxation is ardent spirit, the consumption of which in the colony is great, as might indeed be expected if we take into consideration the previous habits of a large part of the population.

The climate and soil of New South Wales, so far as our researches have hitherto been carried, appear to be admirably calculated for the breeding and rearing of flocks of sheep, which, having an almost unlimited extent of pasturage, increase with the greatest rapidity, and yield fleeces of very excellent quality. The export of sheep's wool from the colony in each year from 1822 to 1848, as stated below, will show how rapid has been the increase in this branch of colonial wealth:—

Years.	lbs.	Years.	lbs.	Years.	lbs.
1822	172,880	1831	1,401,284	1840	8,610,775
1823	198,240	1832	1,515,156	1841	8,589,368
1824	275,560	1833	1,734,203	1842	9,428,036
1825	411,600	1834	2,246,933	1843	12,704,899
1826	552,960	1835	3,893,927	1844	13,541,173
1827	407,116	1836	3,693,241	1845	17,364,734
1828	834,343	1837	4,448,796	1846	16,479,520
1829	1,005,333	1838	5,749,376	1847	22,379,722
1830	899,750	1839	7,213,584	1848	22,960,711

The only exportable articles which, until very recently, and with the exception of wool, New South Wales has hitherto afforded in any considerable quantities, are the produce of the whale fishery which has been

carried on from its shores, during the past few years. The fishery is prosecuted to great advantage because of the abundance of whales found near to the coast, so that the vessels employed have no long voyage to make in quest of them, as is the case with our northern whale fishery. Both the black whale and the spermaceti whale are found. The progress of this fishery up to 1838 was as follows:—

Years.	Number of Ships.	Sperm Whale Oil.	Black Whale Oil.	Whalebone.	Number of Seal Skins.
		Tuns.	Tuns.	Cwts.	
1828	No account.	348	50	No account.	7,647
1829	27	885	..	„	12,350
1830	32	1,282	518	„	5,460
1831	31	1,914	1,004	„	4,972
1832	22	1,648	247	330	891
1833	27	3,483	314	485	2,465
1834	24	2,243	1,124	820	737
1835	29	2,716	42	40	..
1836	40	1,700	1,178	1,926	386
1837	47	1,179	2,006	1,550	200
1838	53	1,184	2,178	2,734	180

The accounts for subsequent years are not given with the same distinctness, but the progress, until 1843, will be indicated by the quantity of oil, &c., exported. This was—

Years.	Sperm.	Black Whale.	Whalebone.
	Tuns.	Tuns.	Tons.
1839	1,578	1,229	134
1840	1,854	4,297	250
1841	1,545	1,018	84
1842	957	1,171	60
1843	1,115	190	22

Within the last few years, the colonists have applied themselves to the production of tallow as an article of export. In 1843 the quantity shipped from the colony was 5680 cwts.; in 1844 it amounted to 56,609 cwts.; and in 1848 to 98,213 cwts. There seems good reason to believe that this will become in a few years a considerable branch of trade.

A time will arrive at which the flowing of capital into our Australian colonies from England will be checked, if indeed it do not cease. The system of transporting our convicts to such distant settlements was for some time very seriously questioned, and has for some years been changed, and the circumstances of distress in which our working popu-

lation was in some recent years placed, has to a great extent passed away, so that employment for them may be found at home, and schemes for promoting emigration by means of bounties may now be abandoned. What, then, will be the condition of our Australian colonists, if, in the mean time, they shall not have employed their industry in providing a greater variety or a larger amount of exportable produce? The climate is well adapted to the production of many articles for which a market may be found in England. There is reason for believing that cotton of excellent quality may be raised in great abundance, that tobacco may be grown with advantage, and that wine may be produced sufficient for the consumption of the colony, even if it were allowed to become a substitute for ardent spirits, and that at no distant day some considerable quantity might be furnished for exportation. Dried fruits, too, which are at present supplied to us from Spain and countries bordering the Mediterranean, might become articles of exportation, and a source of wealth to the colonists.

The trade of the colony has increased with a rapidity equal to that of its population.

A part of the excess in the value of imports over exports arises, as already explained, from the transfer of capital to the colony on the part of free emigrants, while a considerable proportion of the exports from England are paid for in Government bills drawn from the colony for the expenses of the convict establishments.

The value of imports and exports in each year from 1828 to 1848 was as follows :—

Years.	IMPORTS.			
	Great Britain.	British Colonies.	Foreign States and Fisheries.	Total.
	£.	£.	£.	£.
1828	399,892	125,862	44,246	570,000
1829	423,463	135,486	42,055	601,004
1830	268,935	60,356	91,189	420,480
1831	241,989	68,804	179,359	490,152
1832	409,344	47,895	147,381	604,620
1833	434,220	61,662	218,090	713,972
1834	669,663	124,570	197,757	991,990
1835	707,133	144,824	262,848	1,114,805
1836	794,422	220,254	222,730	1,237,406
1837	807,264	257,427	232,800	1,297,491
1838	1,102,127	255,975	221,175	1,579,277
1839	1,251,969	504,828	479,574	2,236,371
1840	2,200,305	376,054	437,830	3,014,189
1841	1,837,369	332,296	358,323	2,527,988
1842	854,774	298,201	302,084	1,455,059
1843	1,034,942	227,029	288,573	1,550,544
1844	643,419	153,923	133,918	931,260
1845	777,112	237,759	218,983	1,233,854
1846	1,119,301	262,943	248,278	1,630,522
1847	1,347,241	388,724	246,058	1,982,023
1848	1,084,054	263,787	208,709	1,556,550

Years.	EXPORTS.			
	Great Britain.	British Colonies.	Foreign States and Fisheries.	Total.
	£.	£.	£.	£.
1828	84,008	4,845	1,197	90,050
1829	146,283	12,692	2,741	161,716
1830	120,559	15,597	5,305	141,461
1831	211,138	60,354	52,676	324,168
1832	252,106	63,934	68,304	384,344
1833	269,508	67,344	57,949	394,801
1834	400,738	128,211	58,691	587,640
1835	496,345	83,108	102,740	682,193
1836	513,976	172,780	61,868	748,624
1837	518,951	157,975	83,128	760,054
1838	583,154	160,640	58,974	802,768
1839	597,100	289,857	61,819	948,776
1840	792,494	520,210	86,988	1,399,692
1841	706,336	238,948	78,113	1,023,397
1842	685,705	298,023	83,683	1,067,411
1843	825,885	285,756	60,679	1,172,320
1844	854,903	236,352	36,860	1,128,115
1845	1,254,881	276,788	24,317	1,555,986
1846	1,130,179	328,922	22,438	1,481,539
1847	1,503,091	335,137	31,818	1,870,046
1848	1,483,224	335,887	11,257	1,830,368

The number and tonnage of the shipping employed in the trade of the colony in each year from 1834 to 1848 were as follows:—

Years.	INWARDS.									
	Great Britain.		British Colonies.		United States.		Foreign States.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1834	58	20,906	112	23,730	..	..	75	13,896	245	58,532
1835	47	17,530	132	28,507	6	1,400	75	15,582	260	63,019
1836	60	23,610	124	25,861	3	975	82	14,969	269	65,415
1837	56	21,816	94	21,085	5	1,220	105	23,239	260	67,360
1838	102	41,848	106	22,928	1	274	82	15,010	291	80,060
1839	137	58,123	349	54,297	4	1,177	73	21,877	563	135,474
1840	190	80,806	415	66,748	8	2,520	96	28,884	709	178,958
1841	251	106,332	370	51,523	13	4,754	80	21,169	714	183,778
1842	137	55,144	363	56,450	7	2,762	121	29,565	628	143,921
1843	87	35,914	368	50,163	5	1,116	98	23,671	558	110,864
1844	78	34,765	280	38,384	3	1,005	56	13,385	417	87,539
1845	80	29,954	426	53,769	1	243	90	21,386	597	105,352
1846	84	36,761	540	68,350	1	370	142	35,986	767	141,467
1847	88	37,941	640	80,130	1	160	149	36,673	878	154,904
1848	119	57,604	755	112,355	1	406	121	28,939	996	199,304
	OUTWARDS.									
1834	27	8,639	88	16,005	..	..	105	28,729	220	53,373
1835	31	11,261	90	15,821	..	..	148	39,882	269	66,964
1836	32	9,759	106	22,895	..	..	126	30,180	264	62,834
1837	43	13,398	91	20,959	..	..	128	30,239	262	64,596
1838	35	12,367	83	17,043	1	289	154	51,626	273	81,325
1839	39	13,886	384	66,330	2	621	123	43,939	548	124,776
1840	54	18,774	433	83,242	4	950	174	60,738	665	163,704
1841	54	16,418	420	83,056	1	341	215	72,303	690	172,118
1842	54	16,323	406	69,971	2	705	171	47,971	633	134,970
1843	70	22,154	376	53,892	..	..	118	33,980	564	110,026
1844	67	24,163	415	61,141	..	..	87	23,938	569	109,242
1845	67	25,221	459	57,173	..	..	88	21,567	614	103,961
1846	57	22,545	559	75,555	..	..	138	36,898	754	134,998
1847	75	30,951	693	93,624	..	..	165	44,049	933	168,664
1848	75	31,725	744	118,957	..	..	126	36,643	945	187,322

The number and tonnage of shipping registered in the colony on t 31st of December, 1841, was—

	Vessels.	Tons.
Sailing-vessels—under 50 tons . .	87	1,903
„ above 50 tons . .	119	20,519
	206	22,422
Steam vessels—under 50 tons . .	3	126
„ above 50 tons . .	11	1,330
	14	1,456
Total . . .	220	23,878

The population of Van Diemen's Land in 1824 was as follows:—

	Males.	Females.	Total.
Free	3,781	2,248	6,029
Convicts	5,467	471	5,938
Military and their families .	266	70	336
Total. . . .	9,514	2,789	12,303

In 1830 these numbers were doubled. The inhabitants then were

	Males.	Females.	Total.
Free	8,351	4,623	12,974
Convicts.	8,877	1,318	10,195
Military and their families .	880	230	1,110
Total. . . .	18,108	6,171	24,279

In 1838, the latest year for which we have the numbers particulari in classes, they were—

	Males.	Females.	Total.
Free	14,692	11,363	26,055
Convicts	16,069	2,064	18,133
Military and their families .	1,171	405	1,576
Total. . . .	31,932	13,832	45,764

From a more recent return it appeared that the population on the 3 of December, 1844, was increased by immigration—forced and vol tary—and by natural causes, to—

Males . . .	39,604
Females . .	17,816
Total . .	57,420

The official return for 1848 states the population as being—

Males . . .	47,828
Females . .	22,336
Total . .	70,164

The disparity in the sexes is greater even than exists in New So Wales. The proportion of females to the whole population was—

In 1824	22·67 per cent.	In 1844	31·03 per cent.
1830	25·41 „	1848	31·83 „
1838	30·22 „		

The evil appears to be decreasing here as in New South Wales.

This island is not so subject to drought as New South Wales, and it is therefore better adapted for arable cultivation. The farming produce raised in each of the years 1836 to 1838, in 1844, and in 1848, was as follows:—

Years.	Wheat.	Barley.	Oats.	Peas.	Beans.	Potatoes.	Turnips.	Hay.
	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Tons.	Tons.	Tons.
1836	485,969	89,429	121,526	9,819	1,480	11,936	69,009	8,560
1837	309,569	73,566	128,209	9,035	237	4,015	22,547	10,790
1838	551,285	183,640	251,491	12,460	1,031	11,533	12,396	15,992
1844	752,924	165,247	209,205	8,416	1,072	12,161	25,631	20,954
1848	1,241,706	358,895	770,624	13,014	1,850	18,331	41,262	51,850

The number of stock in the same years was—

Years.	Horses.	Horned Cattle.	Sheep.	Goats.
1836	8,243	74,500	906,813	1,964
1837	8,010	73,212	911,357	1,624
1838	9,884	77,153	1,222,511	2,624
1844	15,355	85,302	1,145,089	..
1848	17,196	85,485	1,752,973	2,902

The whale fishery is followed as a regular trade from this colony. The value of the oil and whalebone taken in each year from 1828 to 1838, in 1844, and in 1848, will show the increasing importance of this pursuit:—

Years.	£.	Years.	£.	Years.	£.
1828	11,268	1833	30,620	1837	135,210
1829	12,313	1834	56,450	1838	98,660
1830	22,065	1835	64,858	1844	53,657
1831	33,549	1836	57,660	1848	51,264
1832	37,176				

The quantity of colonial wool exported from Van Diemen's Land in each year from 1832 to 1847, was as follows:—

Years.	lbs.	Years.	lbs.	Years.	lbs.
1832	1,333,061	1838	2,839,512	1843	3,376,080
1833	1,454,719	1839	3,080,920	1844	3,740,400
1834	1,372,668	1840	3,019,340	1845	3,820,320
1835	1,833,653	1841	3,408,360	1846	4,100,880
1836	1,727,258	1842	3,297,360	1847	4,856,400
1837	2,638,250				

A return has been made of the number of manufactories, mills, and principal trades, in each year from 1824 to 1838, showing a progressive and steady increase in every branch. The numbers in the first and last years of the series respectively were as follows:—

	1824	1838
Agricultural implement makers	..	9
Breweries	3	19
Candle manufactories	..	4
Cooperages	..	9
Coachmakers	..	2
Distilleries	1	4
Engineers	..	7
Mills—steam	..	3
„ water and wind	5	51
Printing-offices	1	8
Tanners	6	15
Wool-staplers	..	3

The trade of this colony has increased with great rapidity. In 1824 the total imports were valued at 62,000*l.*, of which 50,000*l.* came from England, and 10,000*l.* from other British colonies. The exports in that year were valued at 14,500*l.*, all of which were made to England or its colonies. In the ten years from 1829 to 1838 the values of imports and exports were as follows:—

Years.	IMPORTS. Great Britain.	British Colonies.	United States.	Foreign Countries.	Total.
	£.	£.	£.	£.	£.
1829	176,366	77,529	..	18,294	272,189
1830	153,478	93,251	..	8,569	255,298
1831	211,612	75,442	..	11,720	298,774
1832	293,885	91,119	..	7,662	392,666
1833	258,904	80,860	..	13,130	352,894
1834	316,559	145,445	1,424	13,189	476,617
1835	403,879	149,664	3,368	26,735	583,646
1836	386,142	163,471	2,002	6,625	558,240
1837	391,804	158,074	889	12,377	563,144
1838	556,746	129,602	2,661	13,947	702,956
	EXPORTS.				
1829	55,535	71,115	..	534	126,984
1830	52,031	93,742	..	207	145,980
1831	87,893	53,852	..	..	141,745
1832	110,883	46,787	..	236	157,906
1833	105,126	47,567	..	274	152,967
1834	167,815	35,399	290	18	203,522
1835	218,754	101,716	61	148	320,679
1836	232,720	186,193	1,210	..	420,123
1837	314,224	225,907	..	90	540,221
1838	321,871	251,604	8,000	..	581,475

The total value of imports and exports in the following years to 1847 has been as follows:—

Years.	Imports. £.	Exports. £.	Years.	Imports. £.	Exports. £.
1839	524,169	500,701	1844	322,879	286,373
1840	679,484	457,720	1845	389,357	268,159
1841	488,588	407,822	1846	403,959	335,392
1842	353,929	303,978	1847	538,323	393,486
1843	462,570	280,874			

The greater value of the imports over exports is due to the same causes as produce the like result in New South Wales, and which South already been explained. d was—

The tonnage employed in the trade during the above years, in 1844 and 1848, was as follows:—

Years.	Entered.		Cleared.		Years.	Entered.		Cleared.	
	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.
1829	110	24,717	111	25,742	1835	234	55,833	225	53,560
1830	101	26,582	92	25,045	1836	292	58,142	274	52,780
1831	94	23,184	102	25,451	1837	344	60,960	363	57,945
1832	142	31,724	128	28,019	1838	370	64,454	369	63,392
1833	167	37,442	159	36,250	1844	425	68,462	445	71,756
1834	150	33,441	134	32,192	1848	648	91,883	677	95,988

The shipping belonging to the colony has increased rapidly. In 1824 its whole mercantile marine consisted of one vessel of 42 tons; in 1830 the colony possessed sixteen vessels of 1386 tons; in 1834 these were increased to sixty-six vessels of 4437 tons; in 1838 its shipping amounted to 101 vessels, measuring 8382 tons; and at the end of 1841 the number and tonnage were as under:—

	Ships.	Tons.
Sailing-vessels—under 50 tons . .	75	1,804
„ above 50 tons . .	68	10,119
	143	11,923
Steam-vessels—under 50 tons . .	3	91
Total . . .	146	12,014

The population of Western Australia (Swan River) from 1834 to 1839, and in 1844, was as follows:—

Years.	Males.	Females.	Total.
1834	1,230	840	2,070
1835	1,231	734	1,965
1836	1,285	755	2,040
1837	1,249	776	2,025
1838	1,152	776	1,928
1839	1,302	852	2,154
1844	2,594	1,756	4,350

In 1848 the population amounted to 4460, exclusive of about 2000 aborigines.

The shipping that entered the ports of Fremantle and Albany in the above years, and in 1848, was as follows:—

Years.	Great Britain.		British Colonies.		United States.		Foreign Countries.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1834	4	1,331	16	1,769	..	..	..	..	20	3,120
1835	3	560	19	2,699	1	164	6	666	29	4,089
1836	..	..	18	2,178	3	830	..	..	21	3,008
1837	4	842	8	1,415	1	365	1	391	14	3,013
1838	2	450	13	2,296	9	2,770	..	..	24	5,516
1839		38	8,337		20	6,175	6	2,293	64	16,805
1844	7	2,160	34	3,377	14	4,105	1	360	56	10,002
1848	3	927	30	4,314	8	2,379	1	332	42	7,952

The quantity of land granted by the Government since the first est blishment of the colony amounted at the end of 1839 to 1,561,903 acr and the quantity sold up to that time was 29,353 acres. The to amount in crop in 1848 was 6904 acres, chiefly in wheat. In the sa year the number of stock consisted of—

Horses	2,359	Sheep	144,054
Horned Cattle . .	11,938	Swine	3,185

The number of settlers who arrived in the colony of South Austra up to the close of 1840 was—

Years.	Settlers.
1836	941
1837	1,279
1838	2,598
1839	5,197
1840	5,025
Total .	15,040

The returns did not make any distinction of sexes, except for the y 1839, when the emigrants were divided in the proportion of seven ma to six females.

A census was taken in 1844, when it was found that the popu*lati* consisted of—

Males	9,526
Females	7,670
Not distinguished . .	170 (convertible)
Total . .	17,366

At the end of 1848 the number of inhabitants was estimated to ha increased to 38,666, exclusive of coloured people, estimated at 3730.

The sales of public lands effected up to the end of 1841 includ 288,817 acres, the purchase-money of which amounted to 267,988*l.* T money thus produced is applied, under a Board of Commissioners, defray the expense of conveying emigrants to the colony, with the vi of furnishing the settlers with labourers.

The entire population of the Australian group of colonies, reckon only persons of European origin, amounted at the end of 1848 to 333,7 or double the number in 1839 when it had reached 170,676.

The colonization of New Zealand, or, more correctly speaking, t settlement upon the islands known by that name, by British subjec had been for some time in progress, when, in 1839, the group w declared to be subject to the Crown of England, and an organiz government was established. Prior to this step on the part of t Government, large tracts of land had been acquired by individuals fr the native chiefs for nominal considerations, such as a blanket, a hatch or a gun. Such purchases have since been officially declared inval nor, indeed, is any title to the possession of land within the colony h to be valid unless derived from or confirmed by Her Majesty.

The colony of New Zealand consists of three islands, viz., New Ulster, or North Island; New Munster, or Middle Island; and New Leinster, or South Island. They are situated between 48° and 34° south latitude, and between 166° and 179° east longitude.

As regards the population of this group of islands, we have no certain information. The North Island is roughly estimated to contain 100,000 native inhabitants; but no estimate has been formed with respect to the population of the other two islands.

The progress of the European population during the six years ending with 1848 has been as follows:—

	1843	1844	1845	1846	1847	1848*
Males	3,286	4,029	4,008	3,944	4,273	6,200
Females	3,133	3,296	3,367	3,348	3,526	4,283
Strangers or aliens .	150	500	206	89	174	..
Total . .	7,109	7,825	7,581	7,381	7,973	10,483

* Including military, amounting to 1580.

The land in cultivation, and number of live stock, in each of the same six years was—

Years.	Acres.	Horses.	Cattle.	Sheep.	Goats.	Pigs.
1843	1,382	183	2,208	6,500	344	1,152
1844	2,333	285	3,216	13,859	882	No return.
1845	3,468	372	4,271	21,598	1,371	2,409
1846	4,202	402	5,971	33,529	2,277	2,866
1847	5,785	716	7,876	48,755	3,494	3,236
1848	7,929	1,100	12,677	85,915	7,358	12,424

There are several establishments from which the whale fishery is carried on by means of boats. The produce, and its value, during the above six years were—

Years.	Sperm Oil.	Black Whale Oil.	Whale-bone.	Value.
	Tuns.	Tuns.	Tons.	£.
1843	10	1,279	65	32,680
1844	..	1,215	49	26,240
1845	103	937	36¾	27,823
1846	13½	788	27¼	19,074
1847	7	460	15½	8,644
1848	175	302	16	14,898

The value of imports and exports into and from the province of New Munster in each year, from 1841 to 1848, was—

Years.	Imports. £.	Exports. £.	Years.	Imports. £.	Export £.
1841	53,625	14,447	1845	44,066	24,374
1842	112,592	12,156	1846	69,333	34,350
1843	105,436	29,311	1847	105,216	26,762
1844	74,381	38,644	1848	109,412	22,875

The value of British manufactures exported to New Zealand in vario years since 1827 to 1845 has been as follows:—

Years.	£.	Years.	£.	Years.	£.
1827	172	1834	nil.	1840	38,793
1828	2,487	1835	2,687	1841	67,275
1829	845	1836	nil.	1842	42,788
1830	1,396	1837	nil.	1843	95,247
1831	4,752	1838	1,095	1844	47,512
1832	1,576	1839	23,459	1845	43,045
1833	936				

Our importations from these islands have hitherto been insignifica being confined to small quantities of fish oil and timber. Of this lat article the islands are said to contain a very abundant supply of ve desirable qualities, and in particular that spars of considerable size m be obtained for the use of our navy.

The shipping engaged in the trade between the United Kingdom a this colony in each year from 1841 to 1849, was as follows:—

Years.	Entered.		Cleared.	
	Ships.	Tons.	Ships	Tons.
1841	4	1,584	38	15,556
1842	4	1,341	24	9,651
1843	..	..	11	4,538
1844	6	1,348	6	2,212
1845	4	1,184	6	1,875
1846	4	1,457	9	2,604
1847	5	1,638	10	4,955
1848	3	1,003	12	5,528
1849	4	1,703	22	10,365

CHAPTER V.

DEPENDENCIES IN AFRICA.

CAPE OF GOOD HOPE: Population—Imports and Exports—Shipping—Productions—Wine—Whale Fishery—Stock—Farm Produce—Timber—Harbours. ST. HELENA: Population—Imports—Shipping—ASCENSION: Products. SIERRA LEONE: Population—Emancipated Slaves—Unhealthiness of Climate—Imports and Exports—Shipping. Settlement on the GAMBIA: Population—Trade. Settlements on the GOLD COAST: CAPE COAST CASTLE: ACCRA: DIX COVE: ANNAMABOE: Trade—Population. FERNANDO PO: Population.

THE dependencies and colonies of the United Kingdom in Africa are (with the exception of the Mauritius and its dependencies, described in a former chapter)—

The Cape of Good Hope;
St. Helena;
Ascension Island;
Sierra Leone;
Settlements on the Gambia;
Cape Coast Castle;
Accra;
Dix Cove;
Annamaboe; and
Fernando Po.

The cape which gives its name to the important colony of the Cape of Good Hope is situated at the most southern point of Africa, in 34° 23′ south latitude, and 18° 23′ east longitude. From this point the colony extends northward to 29° 40′ south latitude, and eastward to the Great Kei river in 28° 25′ east longitude. The area of the colony comprises 110,256 square miles.

Cape Town, the capital, is built on Table Bay, on the north coast of a peninsula about thirty miles long, and which for some time formed the extent of the settlement made by the Dutch in 1650. In 1795 the town and colony were taken by the English, but were restored to Holland by the Treaty of Amiens in 1801. In 1806 it was again taken by the British forces, and its possession was confirmed to us by the peace of 1814.

When it fell into our hands, in 1795, the population of all races was estimated to amount to about 60,000; in 1806 the numbers were—

	Males.	Females.	Total.
Whites and free coloured . .	13,624	11,990	25,614
Free blacks	529	605	1,134
Negro and coloured slaves . .	18,990	10,313	29,303
Hottentots	8,496	8,935	17,431
Total . . .	41,639	31,843	73,482

In 1839, when the condition of slavery had ceased, the number were—

	Males.	Females.	Total.
Whites	34,973	33,207	68,180
Black and coloured people . .	38,976	36,115	75,091
Total . . .	73,949	69,322	143,271

The latest census was taken in 1849, when the numbers were found to be—

	Males.	Females.	Total.
Whites	38,367	34,851	73,218
Coloured	39,964	38,609	78,573
Cape Town—race not distinguished .	11,517	12,232	23,749
Total	89,848	85,692	175,540

showing an increase of 138 per cent. in forty-three years from natural causes, from immigration, and from extension of territory.

The exports of British manufactures to this colony during each of the years from 1827 to 1849 were to the following value :—

Years.	£.	Years.	£.	Years.	£.
1827	216,558	1835	326,921	1843	502,577
1828	218,049	1836	482,315	1844	424,151
1829	257,501	1837	488,814	1845	648,749
1830	330,036	1838	623,323	1846	480,979
1831	257,245	1839	464,130	1847	688,208
1832	292,405	1840	417,091	1848	645,718
1833	346,197	1841	384,574	1849	520,896
1834	304,382	1842	369,076		

The principal exports from the Cape consist of hides, salted meat butter, grain, and flour, horns, ivory, goat, seal, and sheep skins, tallow wool, and wine.

Of the last-named article of produce the quantity exported in each of the five years 1835 to 1839, and in 1849, was—

Years.	Gallons.		£.
1835	1,247,819,	valued at	107,546
1836	926,639	„	84,220
1837	1,122,906	„	99,851
1838	1,090,079	„	102,408
1839	1,157,061	„	99,798
1849	515,861	„	49,015

The shipping that entered and cleared from the several ports of Cape Colony, viz., Cape Town, Simon's Town, and Port Elizabeth, in the four years 1836 to 1839, in 1844 and in 1848, was as follows :—

Years.	Entered.		Cleared.	
	Ships.	Tons.	Ships.	Tons.
1836	381	124,952	352	118,042
1837	400	139,103	378	134,207
1838	472	170,329	356	165,977
1839	524	168,729	510	166,021
1844	533	177,804	503	171,073
1848	806	214,979	805	216,790

The number and tonnage of vessels that belonged to Cape Colony in each of the years 1838 to 1841 were as follows:—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1838	14	1,596	1840	23	2,743
1839	15	1,670	1841	24	3,150

It was at one time believed that by careful attention to the cultivation of the vine in this colony, and to the preparation of its produce, England might be made in a great degree independent of other wine-growing countries. In this belief, and following up the notion that this end would the more surely be attained by giving to Cape wine a fiscal advantage in our markets over the wine of foreign countries, the duty was reduced in 1813 to one-third the rate charged upon other wine; and in 1825, when a general reduction was made in the duty on wine, a further small abatement was made in favour of Cape wines, which have since paid half the rates charged upon other wine; but the expected result has not followed. The produce has not of late years been sensibly augmented, and the quality continues as inferior (if, indeed, it has not deteriorated) as it was before this boon was granted to the colony. Whether this effect is attributable to causes beyond the control of the wine-growers of the Cape, or is a consequence of want of energy resulting from legislative protection, it is hard to say.

The whale fishery is carried on to a small extent by means of boats. In each of the four years from 1836 to 1839 the result was—

Years.	Number of Boats.	Number of Whales taken.	Number of Seals taken.	Value of Oil, &c.
				£.
1836	47	18	681	3,349
1837	98	9	105	2,355
1838	77	10	345	2,348
1839	118	9	..	1,550

This colony appears to be peculiarly fitted for pastoral purposes, and there is a probability that under the altered tariff of 1842 cured provisions may be profitably brought thence to England. The number of stock existing in the different districts in the three years 1837 to 1839, in 1844 and in 1848, was as follows:—

	1837	1838	1839	1844	1848
Horses . . .	79,881	71,793	56,703	93,881	116,740
Horned cattle.	279,818	266,255	306,809	471,635	419,066
Sheep . . .	1,923,082	2,030,145	2,339,191	4,513,534	4,135,841
Goats . . .	579,480	370,510	393,601	831,223	821,674

The breadth of land under cultivation in the colony during 1848, and the quantity of the several products, were—

	Acres.	Produce.
Wheat	76,282	516,219 bushels
Barley	16,917	233,667 ,,
Oats and rye.	47,603	248,615 ,,
Maize and millet	4,948	34,140 ,,
Peas, beans, and lentils . .	2,501	17,204 ,,
Potatoes	4,050	44,023 ,,

The produce per acre here shown is exceedingly small, and indicate a very unenlightened system of farming, which, however, must be inex pensive, since it admits of the exportation yearly of a considerable portio of what is raised. The principal markets are Mauritius and St. Helen The wheat grown in this colony is of fine quality.

The value of the exports from this colony falls greatly short of th of its imports, the balance being provided by bills of exchange drawn b the Commissariat Department at the Cape upon the Lords of the Tre sury to meet the expenditure incurred on account of the Governmer The produce of the Cape does not offer any variety of articles fro which large cargoes can be assorted for the markets either of Europe of India. Some part of the exports at present made consists of t produce of India and China. There are considerable forests in whi timber trees are found. The best of these is known as African oa and is highly useful to the ship-builder, but the expense attending t cutting and conveyance of the trees to any port of shipment makes t cost in the colony equal to that of Baltic timber.

There are several bays and harbours on the coast, which in the futu development of the resources of the colony may prove themselves to b of great importance; at present the largest proportion of the foreig trade of the colony is carried on from Table Bay. This is an ope roadstead, much exposed to the north-west wind, which prevails fro May to September. Simon's Bay, which forms a small indentation i False Bay, is protected from the north-west, but is exposed to the sout east winds which blow violently in the summer. The distance betwe Simon's Bay and Cape Town is twenty-two miles; the roads are ba and not easily improvable. Algoa Bay, or Port Elizabeth, in 33° 5 south latitude, and 25° 35′ east longitude, is a safe port during the pr valence of the north-west wind, but is hazardous during the remainir six months of the year. Saldanha Bay, in 33° 5′ south latitude, a 17° 50′ east longitude, offers security at all times, but its situation unfavourable for commercial objects.

St. Helena, a small island in the South Atlantic Ocean, is situated 15° 15′ south latitude, and 5° 50′ west longitude. It is but little mo than ten miles long, and less than seven miles wide, its area being abo 30,000 acres.

This island has obtained an historical celebrity from its having be made the prison of Napoleon, when he threw himself upon the hospitali of England, after the battle of Waterloo in 1815, and from its havi been the place of his death and sepulture. During the years that h mortal remains rested in the island a degree of interest was attached the spot, and many a pilgrimage was made to his tomb; but since i contents have been transferred to the church of the *Invalides* in Paris, S Helena has lost this factitious importance, and has fallen back to th

quietude by which it was formerly characterised. The advantage attending the possession of this island resides in its position, and in the plentiful supply which it yields of good water, in quest of which, and of fresh vegetables, it is visited by ships homeward-bound from India.

St. Helena had been colonized by the Dutch, but was abandoned by them when they formed their settlement at the Cape of Good Hope in 1651. In that year it was visited by a fleet of vessels homeward-bound belonging to the East India Company, who took possession in the name of England. That Company subsequently obtained a grant of the island from Charles the Second, and retained possession until 1815, when, to secure the custody of Napoleon, it was judged necessary to place its government more directly under the Crown. On occasion of the last renewal of the Company's charter, when their character as a trading body ceased, all benefit to them from this station was at an end, and its possession was resumed by the Crown.

We have not any statement of the population earlier than 1836. In that year it consisted of 2113 whites, and 2864 coloured persons—together 4997. In July, 1839, a census was taken, and the numbers were found to be 2527 males and 2209 females—together, 4736 souls. The climate is healthy, and the increase of the population through excess of births over deaths is proportionally great. The lessened number of inhabitants in 1839 compared with 1836 was occasioned by the emigration of many of the poorer persons to the Cape of Good Hope.

The exports of British manufactures to St. Helena in each of the years from 1827 to 1849 were to the following amounts:—

Years.	£.	Years.	£.	Years.	£.
1827	41,430	1835	31,187	1843	25,839
1828	31,362	1836	11,041	1844	21,006
1829	45,531	1837	9,645	1845	29,124
1830	38,915	1838	13,990	1846	28,309
1831	39,431	1839	12,668	1847	31,378
1832	21,236	1840	9,884	1848	31,728
1833	30,041	1841	7,921	1849	23,312
1834	31,615	1842	17,530		

The number and tonnage of vessels that sailed from the United Kingdom to St. Helena and Ascension Island in each year from 1831 to 1849 were—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1831	6	1,164	1841	7	1,732
1832	2	283	1842	15	3,977
1833	3	622	1843	22	4,995
1834	12	2,158	1844	26	6,318
1835	9	1,399	1845	18	3,952
1836	5	967	1846	23	5,877
1837	7	1,631	1847	15	4,082
1838	12	2,366	1848	29	7,404
1839	7	1,717	1849	23	5,767
1840	7	1,009			

In the same interval there entered our ports from these islands—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1834	2	362	1844	1	196
1838	3	396	1845	9	2,101
1839	2	452	1846	4	709
1841	1	350	1847	5	1,031
1842	1	350	1848	..	..
1843	12	2,658	1849	..	..

There were not any arrivals thence during nine years of the series.

The importations are composed of East India produce, the islan themselves not producing any articles for exportation beyond t refreshments which they supply to vessels visiting them for that purpo

The island of Ascension, likewise in the South Atlantic Ocean, 6 miles north-west of St. Helena, lies in 7° 56′ south latitude, and 14° 2 west longitude. This small island, seven miles and a half long, and miles wide, is of volcanic origin, and of a naked, desolate charact It was first taken into the possession of England in 1815, during t confinement of Napoleon in St. Helena, and employed as a milita station. It has since been so far improved as to afford sustenance to moderate number of sheep and cattle, and to yield various fruits an green vegetables. Considerable numbers of poultry are reared, an turtle and various kinds of fish abound on the coast. The wate gushing from a small spring, is collected in tanks, and the princip advantage which the possession of this island seems likely to affor consists in the supply of water and fresh provisions to ships calling f such refreshments.

The colony of Sierra Leone takes its name from a cape on the we coast of Africa, in 8° 30′ north latitude, and 13° 15′ west longitud The peninsula which forms the territory of the colony is bounded the north by the river Sierra Leone, on the south by Calmont Cre on the east by the river Bunce, and on the west by the sea: it is abo thirty-five miles long and twenty-five miles broad. The river Sier Leone is in fact the estuary of the Rokelle; it is seven miles wi opposite Freetown, the capital of the colony, and constitutes its harbo This has been in the virtual possession of England since the beginni of the sixteenth century: it is the only place worthy to be called harbour between Cape Verde and Fernando Po. An English fort w built there in the reign of Charles the First, but the first attempt colonize it was made in 1787, when 340 negroes, American refuge were sent there from London at the expense of some private philanthr pists. Of this colony only sixty-three remained in 1791. In 1792, th Sierra Leone Company sent out 119 settlers, part of whom were Eur peans; of these only 40 were living in 1793. In the same year 11 negroes were conveyed there from Nova Scotia, all of whom, and the descendants, remaining in 1827, were 578 persons. In 1800 a party

550 Maroons were landed from Jamaica, and for a time they appeared to thrive, having increased their numbers in 1836 to 681; but in 1841 all of them, excepting seventy, had left the colony. In 1818 upwards of 1200 persons of African blood, pensioners from the West India regiment, and their families, were conveyed to the colony.

The chief part of the population of Sierra Leone now consists of Africans who have been captured on board slave-ships and liberated in the colony by the authority of a Court of Mixed Commission placed there under the provisions of treaties for the suppression of the slave trade. The population in 1844 consisted of—

	Males.	Females.	Total.
Whites	136	39	175
Black and coloured people . .	22,127	18,931	41,058
Aliens and resident strangers .	2,298	1,404	3,702
Total			44,935

Of these about 14,000, including nearly all the whites, inhabited Freetown. Among the blacks in the colony are about 2000 Kroomen, an industrious, intelligent, and well-conducted race, who are never enslaved, and by whom all the heavy work of the place is performed. They are pagans, and every attempt made to convert them to Christianity has failed; they make no wars, carry off no slaves, and are altogether averse to the trade in men; they are very docile and easily managed.

The number of slaves that had been emancipated at Sierra Leone up to the year 1840 was 70,809, of whom 20,709 males and 16,320 females, together 37,022, were living in the colony in December, 1840.

The colony is administered by a Governor and a Legislative Council, composed of the Chief Justice, Colonial Secretary, and three other principal functionaries.

It unfortunately happens, through the fatal influence of the climate upon the health and lives of Europeans, that persons to whom the administration of the colony is intrusted seldom remain long enough in office to conceive and to carry out plans for its improvement.

The trade of the United Kingdom with Sierra Leone is not kept in our Custom-house distinctly, but is included with that to the African coast from the river Gambia inclusive to the river Mesurada. The value of British manufactures exported to this quarter in each of the fifteen years 1827 to 1841 was as follows:—

Years.	£.	Years.	£.	Years.	£.
1827	75,456	1832	69,255	1837	109,597
1828	62,100	1833	58,336	1838	134,470
1829	85,700	1834	86,431	1839	123,539
1830	87,144	1835	75,388	1840	93,640
1831	85,192	1836	108,978	1841	96,092

These exports consist chiefly of wearing apparel, arms, and ammunition, cotton manufactures, iron and steel goods, and woollens. The

returns are made in cam-wood, gums, hides, palm oil, ivory, teak wood, and bees' wax.

The shipping employed in the trade between the United Kingdom and Sierra Leone, in 1848 and 1849, consisted of—

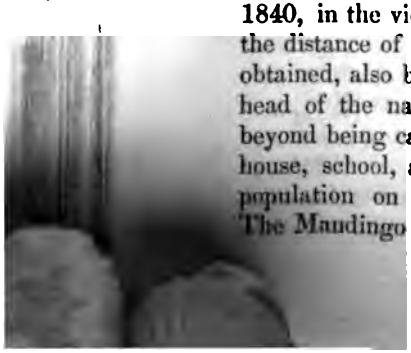
	1848		1849	
	Ships.	Tons.	Ships.	Tons.
Outwards . . .	44	16,004	45	14,991
Inwards . . .	37	11,439	35	11,964

There belonged to the colony in the year 1841,—

	Ships.	Tons.
Under 50 tons	7	245
Above „	8	566
Total . .	15	811

The settlements on the river Gambia form a dependency on the Government of Sierra Leone. The town, Bathurst, is on the left bank of the river Gambia, at its entrance from the ocean, in 13° 30′ north latitude, and 16° 37′ west longitude.

Expeditions were sent out from England early in the seventeenth century to this point, their object being to obtain gold and ivory in exchange for English goods; but the attempts at forming a settlement were then frustrated through the conjoint operations of hostility on the part of the Portuguese, and the unhealthiness of the climate. About 1723 a British factory was created by the African Company on the small island of St. James, about seventeen miles from the mouth of the Gambia. The principal trade carried on here by the African Company was that in slaves, which for a long time received great encouragement from the British Parliament, and was generally considered as a blameless pursuit! In 1688 the fort of St. James's Island was destroyed by the French, and the factory at that spot was afterwards abandoned. A new settlement was formed in 1816 at Bathurst, on the island of St. Mary, at the mouth of the Gambia. This island was obtained by purchase from the King of Combo, to whose successors we pay a yearly quit-rent of 200 dollars. We bought in 1820, from the King of Barra a belt of land on the opposite bank of the river, extending one mile inland, and about thirty-six miles along its bank, and this gives us the command of the mouth of the river. Another purchase was made in 1840, in the vicinity of Cape St. Mary, of the Baccow territory. At the distance of 175 miles up the river, following its windings, we have obtained, also by purchase, Macarthy's Island, which is situated at the head of the navigation for vessels of considerable burthen, the trade beyond being carried on in small schooners. Some barracks, a mission-house, school, and chapel, have been built on Macarthy's Island, the population on which amounts to about 800 males and 400 females. The Mandingo town of Morocunda stands on this island.



The population consists of 49 whites, 4446 coloured people (2398 males and 2097 females), and 591 aliens and strangers.

The value of British manufactures exported from the United Kingdom is included by the Custom-house with the trade of Sierra Leone, as already explained.

The remaining British settlements on the continent of Africa are situated on what is called "The Gold Coast." They comprise Cape Coast Castle, Accra, Dix Cove, and Annamaboe.

Cape Coast Castle, in 5° 6′ north latitude, and 1° 10′ west longitude, is the seat of government for these settlements. Accra lies in 5° 33′ north latitude, and 0° 5′ west longitude. Dix Cove, in 4° 46′ north latitude, and 1° 55′ west longitude; and Annamaboe, in 5° 12′ north latitude, and 1° 7′ west longitude.

Cape Coast Castle was first settled by the Portuguese, who were dispossessed by the Dutch. It was captured by the English in 1661, and has since remained in our possession. The country, even in the immediate vicinity of our stations, is represented as "a wilderness, an impenetrable jungle, where cultivation has never been." The posts on the coast held by us are in fact stations to which the natives from the interior may resort for the purpose of carrying on a barter trade. We do not pretend to any territorial possession beyond the actual site of our several forts.

The value of British manufactures, chiefly arms and ammunition, brass and copper manufactures, cotton and woollen goods, exported from the United Kingdom to the different stations on the Gold Coast in each year from 1827 to 1841 was—

Years.	£.	Years.	£.	Years.	£.
1827	22,414	1832	65,291	1837	89,020
1828	41,985	1833	86,263	1838	102,685
1829	46,962	1834	107,627	1839	131,444
1830	52,889	1835	87,841	1840	136,877
1831	59,214	1836	142,063	1841	133,510

The returns are made chiefly in palm oil, gums, Guinea grains, gold-dust, dye-woods, and ivory. There has of late years been a considerable increase in the quantity of exportable products, and consequently in the value also of our shipments to that quarter. The quantity of palm oil obtained thence in 1827 was only 4962 cwt.; in 1831 it had increased to 16,750 cwt.; in 1836 there was a further increase to 22,042 cwt., in 1841 we imported thence 42,754 cwt., and in 1848 our importation amounted to 499,719 cwts. This result is attributed chiefly to the success that has attended our efforts for impeding the trade in slaves.

The population of the district within the direct influence of the British forts along this division of the coast is roughly estimated at from 700,000 to 800,000. They are Fantees. Our principal trade is with Ashantees from the interior. These people are very superior in intelligence to the

Fantees and other dwellers on the coast, who have most probably been demoralized by the slave trade formerly so actively pursued.

Fernando Po is an island in the Bight of Benin, in 3° 25′ north latitude, and 8° 50′ east longitude; it is of volcanic origin, about twenty-four miles long and sixteen miles broad, and about twice the size of the Isle of Wight. Its surface is uneven, and in one part rises to a height of 3500 feet above the sea, to which circumstance is attributed its comparative healthiness. The island was discovered in 1471 by the Portuguese, who exchanged it with Spain for an island off the coast of Brazil. In 1827 it was taken into the possession of England by consent of Spain. The position of this island opposite the Cameroons river and the Amboises makes it of present value in putting down the slave trade; and when this disgraceful traffic shall be suppressed, and the inhabitants of the opposite shores shall have applied themselves to commercial pursuits, Fernando Po will acquire a greater value as a trading station, where Europeans may reside with less danger to life than in other spots on the western coast of Africa. At this time the only white inhabitants are, the agent of the West African Company, a surgeon and a German settler. The black population is variously estimated at from 3000 to 9000. Part of these are from Old Calabar, Bonny, the Cameroons, and the Gold Coast, together with some Kroomen. The English settlement, Clarence Town, stands on a headland 150 feet above the sea, which forms the entrance to Maidstone Bay, a small but tolerably secure harbour on the north side of the island.

At the close of the year 1849, the English Government obtained from the Crown of Denmark, by negotiation and purchase, the Danish settlements on the Gold Coast of Africa, viz., Tacia, Quittah, Ningo, and Addah, which settlements are now made to form part of the stations under the Lieutenant Governor of the previous possessions of this country upon that coast. The object sought through this purchase is that of gaining greater facilities for the suppression of the slave trade.

CHAPTER VI.

BRITISH AMERICA.

CANADA: Population, Lower Canada—Increase by Immigration—Population of Upper Canada—Imports and Exports—Shipping—Ship-building—Fisheries—Agriculture—Manufactures—Mills—Internal Navigation. NEW BRUNSWICK: Area—Population—Imports and Exports—Shipping—Ship-building. NOVA SCOTIA: Population—Inequality in the Numbers of the two Sexes—Imports and Exports—Shipping—Ship-building—Fisheries—Harbours—Live Stock. CAPE BRETON: Population—Imports and Exports—Coals—Ship-building. PRINCE EDWARD'S ISLAND: Population—Imports and Exports—Tenure of Land—Stock—Ship-building. NEWFOUNDLAND: Area—Fisheries—Population—Imports and Exports—Shipping—Ship-building. HUDSON'S BAY TERRITORY: Boundaries—Extent. BERMUDAS: Population—Imports and Exports—Ship-building—Shipping.

THE dependencies of England in North America, exclusive of such of the West India islands as form part of that division of the world, are—

The Province of Canada—Upper and Lower.
" " New Brunswick.
" " Nova Scotia and the Island of Cape Breton.
Prince Edward's Island.
Newfoundland.
The North-west or Hudson's Bay Territory.
The Bermudas.

The capture of Quebec by General Wolfe, in September, 1759, brought the province of Canada under the dominion of England, in whose possession it has since continued without interruption. This important possession is bounded on the east by the Gulf of St. Lawrence and the Atlantic Ocean, on the north by the Hudson's Bay territory, on the west by the Pacific Ocean, and on the south by the United States of America. It lies between 42° and 53° north latitude, and between 64° and 143° west longitude. It is usually considered, however, that the western extremity of the province is Goose Lake, near Fort William, on Lake Superior, in 90° 20′ west longitude. The length of Canada, thus limited, from east to west, is about 1000 miles, and its average breadth from north to south 300 miles, so that its area is 300,000 square miles, or two and a half times that of Great Britain and Ireland.

Upper and Lower Canada contained—

270,718	inhabitants	in	1806
333,250	„	„	1816
580,450	„	„	1824

The population of the four districts of Lower Canada in 1831 was

Quebec	137,126
Montreal	284,650
Three Rivers . . .	70,157
Gaspé	9,505
Total . . .	501,438

A census was taken in 1844, when the numbers were ascertained under:—

	Males.	Females.	Total.	
Lower Canada.—Whites . .	344,855	346,077	690,932	
Coloured . .	140	121	261	
				691,193
Upper Canada.—Whites . .	237,505	224,383	481,888	
Coloured . .	2,409	1,758	4,167	
				486,055
		Total . . .		1,177,248

The increase in the numbers of the people by natural means is rapi The difference between the births and deaths in the six years from 18 to 1836 was equal to an average annual increase of 2½ per cent. B this increase is importantly assisted by immigration. In the same s years the number of emigrants from the United Kingdom who lande at Quebec and Montreal was 194,936. The greater part of these we forward to the upper province, and some of them probably crossed ov to the United States; but on the other hand, a number, probably great than those, of British emigrants who landed at ports in the Unit States, proceeded onwards to Canada. During the six years 1831 1836, the number who landed at the port of New York alone w 169,354. The increase altogether in the districts of Quebec, Montre and Three Rivers, between 1831 and 1836, was 70,789.

The population of Upper Canada in 1831 had reached 296,54 making the numbers in the entire province in that year 797,982. this time (1850) our Canadian fellow-subjects are probably increas to 1,250,000, being about equal to the population of Denmark, exclusi of the duchies of Sleswick Holstein.

Our trade with this part of the British dominions is considerab The exports exceed in value the return shipments, as must be the ca while any considerable number of our countrymen are emigrati thither. The custom-house accounts do not indeed, state the fi measure of this excess, since no entry is made of the greater part of t property taken with them by emigrants, and which, although the val may not be great in the individual cases, must amount to a considerab sum in the aggregate.

The total imports and exports of Canada in each year from 1832 to 1847 were valued in official documents as under:—

Years.	Imports. £.	Exports. £.	Years.	Imports. £.	Exports. £.
1832	1,567,719	952,463	1840	1,903,043	1,625,685
1833	1,665,144	965,026	1841	1,935,687	1,884,328
1834	1,063,643	1,018,922	1842	1,923,223	1,327,306
1835	1,496,378	896,848	1843	1,126,536	1,381,159
1836	1,941,053	1,034,514	1844	2,384,196	1,758,199
1837	1,602,353	908,702	1845	2,599,966	2,185,469
1838	1,413,269	968,599	1846	2,362,844	1,952,821
1839	2,137,374	1,099,337	1847	2,161,923	2,078,572

It thus appears that during those sixteen years this province has imported to the value of seven millions beyond its exports, the whole of which excess has been drawn from England.

The value of our cotton, linen, silk, woollen, and iron manufactures, that found a market in Canada, in each of those years, was—

Years.	MANUFACTURES OF					Total of the foregoing.
	Cotton.	Linen.	Silk.	Woollen.	Iron.	
	£.	£.	£.	£.	£.	£.
1832	309,170	54,320	62,389	229,631	68,246	723,756
1833	247,616	50,576	50,191	257,652	83,373	689,408
1834	173,347	26,733	40,903	133,490	56,663	431,142
1835	349,831	60,039	58,988	237,961	56,884	763,703
1836	473,160	61,235	63,143	303,166	91,643	992,347
1837	283,858	52,847	50,222	224,671	64,839	676,437
1838	249,872	43,936	43,889	193,859	54,871	586,427
1839	544,110	67,468	95,772	329,598	111,604	1,148,552
1840	423,024	90,697	95,583	261,583	119,500	990,387
1841	419,170	83,413	64,857	290,632	137,859	995,931
1842	388,622	70,633	68,323	305,846	99,266	932,690
1843	182,554	31,354	29,508	133,393	34,168	410,977
1844	520,895	72,804	65,307	354,084	157,566	1,170,656
1845	532,097	92,649	88,125	435,700	183,454	1,332,025
1846	462,751	77,451	103,611	432,421	152,643	1,228,877
1847	395,024	69,028	88,677	365,506	179,389	1,097,624

The value of ashes, grain, and timber, the most important articles of Canadian produce that were exported, was as follows:—

Years.	Ashes.	Grain, &c.	Timber.	Together.
	£.	£.	£.	£.
1832	204,667	221,552	471,837	898,056
1833	174,281	241,720	489,367	905,368
1834	108,287	139,742	683,208	931,237
1835	176,231	39,590	620,182	836,003
1836	238,951	28,804	703,165	970,920
1837	180,571	15,331	651,786	847,688
1838	168,980	46,034	706,185	921,199
1839	142,457	32,052	880,403	1,054,912
1840	126,148	494,507	952,826	1,573,481
1841	121,733	660,908	1,019,745	1,802,386
1842	157,906	512,324	522,203	1,192,433
1843	189,009	277,737	836,383	1,303,129
1844	194,893	589,277	898,940	1,683,110
1845	134,430	675,454	1,325,886	2,135,770
1846	122,295	695,078	1,082,163	1,899,536
1847	80,481	1,064,907	873,850	2,019,238

The shipping that entered and cleared in the years 1832 to 1838, and 1845, we

Years.	INWARDS.					
	Great Britain.		British Colonies.		United	
	Ships.	Tons.	Ships.	Tons.	Ships.	
1832	860	255,527	1,162	142,280	780	1
1833	812	234,844	1,155	162,320	994	1
1834	931	275,518	1,157	127,034	771	1
1835	947	297,109	*217	*24,022	1,349	
1836	953	310,645	1,093	202,715	910	
1837	854	288,481	827	189,862	874	
1838	863	306,241	896	152,443	1,113	
1845	1,350	553,353	*184	21,855	30	
	OUTWARDS.					
1832	962	272,468	157	7,418	883	
1833	899	260,967	200	16,977	327	
1834	1,024	302,308	180	14,216	399	
1835	1,015	317,990	218	17,090	832	
1836	1,092	350,741	230	18,175	419	
1837	980	331,883	164	13,875	432	
1838	955	344,153	143	11,939	445	
1845	1,564	625,716	134	9,254	1	

Ship-building forms an important and in the province. There were built and of Canada in each of the ten years from following numbers:—

Years.	Ships.	Tons.
1832	25	4,414
1833	29	5,154
1834	32	6,176
1835	26	5,465
1836	32	7,704
1837	32	6,356

The greater part of these vessels are are then registered in the various ports o were registered, as belonging to Canadia

	Sh
Sailing-vessels—under 50 tons . .	2
,, above 50 tons . .	2
Steam-vessels—under 50 tons . .	
,, above 50 tons . .	
Total . .	

The fisheries for cod, herrings, macker Lower Canada, furnish, after supplying

* Sailing-vessels only included in these years, t bouring colonies is carried on by means of barges.

a yearly export, chiefly to our West India colonies, to the value of 50,000*l.* to 80,000*l.*

Agriculture must necessarily, for many years to come, engage the chief part of the attention of the Canadian population, and if even the assumed necessity for emigration thither from the parent country should cease, we shall continue to find customers among them for our cheap manufactures, although the commonest articles of clothing and household utensils have long been produced in their cottages. It was found that in 1830 there were 13,400 domestic looms in Lower Canada, estimated to produce about 1,400,000 yards of coarse woollen cloth, 1,000,000 yards of common flannel, and 1,350,000 yards of linen. There were at the same time in that division of the province 90 carding and 97 fulling-mills, 3 paper-mills, 395 grist-mills, and 737 saw-mills, many whiskey distilleries, and seven iron foundries. Sugar is very generally made for use by families from the juice of the maple-tree. In Upper Canada, in 1834, the weaving of woollen cloth was a common occupation in the cottages; there were numerous distilleries, breweries, tanneries, fulling-mills, and carding-mills; the number of grist-mills was 551, and of saw-mills 843.

The growth of this province has been, and will continue to be, greatly stimulated by the advantage of easy communication which is offered through the navigation of the St. Lawrence and the magnificent chain of lakes connected with that noble river. In aid of this natural advantage some costly works have been completed, partly by private enterprise, and partly at the expense of England. The most important of these works, the Rideau Canal, cost this country a million of money; it is 135 miles long, beginning at Kingston, on Lake Ontario, and ending at the foot of the Chaudière falls in the Ottawa river.

The province of New Brunswick, which formerly comprised part of Nova Scotia, is bounded on the north by the Gulf of St. Lawrence and the river Ristigouche; on the south by the Bay of Fundy and Chignecto Bay; on the east by Northumberland Strait and the Gulf of St. Lawrence; and on the west by the state of Maine.

The area of the province in square miles is 25,324.

The population was—

In 1806 about	35,000	
1816 „	56,000	
1824 „	78,000	

The inhabitants, in 1834, were found to consist of—

	Males.	Females.	Total.
Whites	61,756	56,078	117,834
Free blacks . . .	757	866	1,623
Total . .	62,513	56,944	119,457

During the five years from 1835 to 1839, besides the natural increase of the inhabitants, there were added to their numbers 18,957 emigrants.

A census was taken in 1840, when th
to be—

Males	
Females	
Total . . .	1

The trade of New Brunswick, in each y
the following amount:—

Years.	Imports. £.	Exports. £.
1832	531,875	471,527
1833	549,215	469,464
1834	567,719	431,301
1835	621,511	577,209
1836	863,783	547,720
1837	730,563	588,397
1838	720,042	656,052
1839	1,011,546	690,386

The value of imports during those sixt
exports by about 2,000,000*l.*, the greater
conveyed to the province by emigrants fro
with much other property not noticed by t

The greatest part of the exports of the
fish, with small quantities of grain. The
in the foregoing sixteen years was—

Years.	Lumber.	Fish.	Corn, &c.	Years.
	£.	£.	£.	
1832	384,900	31,130	5,071	1840
1833	371,479	25,124	5,786	1841
1834	417,773	26,395	2,531	1842
1835	498,789	25,102	1,709	1843
1836	475,431	25,295	1,879	1844
1837	476,670	30,550	2,630	1845
1838	568,857	21,115	1,527	1846
1839	610,380	24,610	3,975	1847

The shipping inwards and outwards d
and in 1844, were—

Years.	INWARD					
	Great Britain.		British Colonies.		United St	
	Ships.	Tons.	Ships.	Tons.	Ships.	To
1833	452	129,089	1,615	105,775	829	68
1834	472	137,796	1,577	92,280	562	46
1835	637	192,555	1,712	86,892	615	45
1836	512	157,862	1,919	118,304	543	56
1837	455	156,579	1,621	108,514	421	52
1838	567	207,907	1,878	127,648	393	38
1839	578	208,712	1,923	118,176	944	64
1844	587	220,135	1,277	80,809	931	112

Years.	OUTWARDS.									
	Great Britain.		British Colonies.		United States.		Foreign Countries		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1833	613	183,121	1,565	102,602	625	29,289	3	428	2,806	316,300
1834	654	189,857	1,453	91,903	218	19,018	1	86	2,326	300,864
1835	816	242,625	1,388	79,983	287	22,077	2	166	2,493	344,851
1836	688	219,259	1,789	108,435	318	18,670	6	671	2,801	347,035
1837	633	224,238	1,534	94,262	261	18,244	8	1,231	2,441	337,975
1838	762	266,566	1,885	109,234	209	18,645	68	4,760	2,924	399,205
1839	826	290,925	1,899	118,800	798	33,688	4	638	3,527	444,051
1844	828	293,358	1,227	65,649	712	39,339	10	831	2,777	439,177

Ship-building is a more important branch of industry in New Brunswick than it is in Canada. During each of the ten years from 1832 to 1841 there were built and registered in the province the following number of ships:—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1832	68	13,682	1837	94	24,957
1833	86	15,450	1838	116	26,931
1834	87	21,803	1839	162	43,091
1835	93	25,309	1840	156	55,618
1836	94	27,712	1841	116	45,555

The number and tonnage of sailing and steam vessels that belonged to the various ports of the province, at the end 1841, were—

	Ships.		Tons.	
Sailing-vessels—under 50 tons	335		8,508	
„ above 50 tons	350		106,370	
		685		114,878
Steam-vessels—above 50 tons		11		1,362
Total . .		696		116,240

A considerable part of the shipping built in this and the other provinces of British America are sold in England after conveying thither their first cargo, and their value, which does not enter into our custom-house accounts, must be considered in estimating the amount of their exports.

By far the largest part of the surface of this province is still in a state of nature; nearly three-fourths remain still ungranted in the hands of Government. The face of the country is intersected by numerous rivers, affording cheap and ready communication during the open season between every part of the province, and the climate is in a high degree healthy. These circumstances point it out as a favourable field for emigration.

The peninsula of Nova Scotia is joined to the continent of North America by an isthmus eleven miles wide, which unites the province with New Brunswick. It is bounded on the west by the Bay of Fundy, on the north by the Gut of Canso, which separates it from the island of

Cape Breton, on the south and on the east by
of Nova Scotia from east to west is 280 mil
about 60 miles.

From an early period England claimed the s
including New Brunswick, by right of its disc
Early in the seventeenth century an attempt w
ment on the peninsula by the French, who
English settlers of Virginia, but it was some
steps were taken to colonize it, and in 1667 i
the Treaty of Buda. In 1710 it was capture
by the treaty of 1713 was fully ceded to Gr
remained subject to the British crown.

The population of this province in 1806 wa
increased to 73,000; in 1824 it contained 8
1838, when the last census was taken, the nu
as follows:—

	Males.
Under 6 years of age . . .	17,294
From 6 to 14 years of age . .	17,522
Above 14 years of age . . .	51,305
Total	86,121

The returns did not include the population
1827 contained 18,176 inhabitants. There is
their accuracy as regards the numbers which
great inequality in the numbers of the two se
proportions found in 1827 were 48·7 females
above proportions give only 44·4 females to
no peculiar circumstances attending the provi
such a variation.

The trade of Nova Scotia in each of the yea
to the following amounts:—

Years.	Imports.	Exports.	Years.	I
	£.	£.		
1832	765,167	392,255	1840	1,
1833	757,620	431,385	1841	1,
1834	700,127	404,650	1842	
1835	612,195	455,547	1843	
1836	733,540	446,097	1844	
1837	790,765	478,461	1845	
1838	923,563	524,311	1846	
1839	1,212,984	642,849	1847	1,

The shipping, inwards and outwards, in e
1839, and in 1843 and 1844, was—

* A corrected account, including the population of Ca
have been 178,237.

Years.	INWARDS.									
	Great Britain.		British Colonies.		United States.		Foreign Countries.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships	Tons.	Ships.	Tons.
1832	129	32,310	1,869	124,026	578	52,867	42	7,637	2,618	216,840
1833	130	32,053	2,200	145,424	1,343	112,893	69	10,597	3,627	271,995
1834	115	30,651	1,297	74,760	967	80,340	38	8,636	2,417	194,387
1835	100	26,685	2,285	154,469	833	161,051	25	2,985	3,243	345,190
1836	108	29,544	2,295	147,781	965	97,689	36	6,119	3,404	381,135
1837	91	26,524	1,986	129,758	882	83,846	57	6,924	3,016	247,052
1838	97	30,208	2,478	162,170	978	101,325	112	12,360	3,665	306,063
1839	97	27,886	2,517	149,631	1,211	136,580	181	18,039	4,006	332,136
1843	144	47,129	1,869	133,364	1,281	94,209	215	24,029	2,509	298,711
1844	144	46,133	1,898	133,719	1,464	114,804	238	26,584	3,744	321,240
	OUTWARDS.									
1832	111	26,733	1,957	128,946	648	62,876	32	3,819	2,748	222,374
1833	124	30,936	2,149	144,459	1,466	122,905	30	3,900	3,869	302,201
1834	136	31,906	1,340	93,278	945	78,040	20	3,165	2,441	206,389
1835	117	30,182	2,430	159,103	876	80,417	29	3,472	3,452	273,174
1836	112	30,931	2,540	170,407	902	90,399	20	2,783	3,574	294,520
1837	89	26,605	2,171	148,945	841	82,496	31	3,726	3,132	261,772
1838	103	30,459	2,804	189,962	963	100,572	39	4,150	3,909	325,083
1839	102	29,739	2,815	179,712	1,266	139,427	49	5,299	4,232	354,177
1843	90	30,249	2,145	165,745	1,336	102,977	53	5,909	3,624	304,880
1844	124	38,026	2,118	160,843	1,549	125,234	67	7,378	3,858	331,481

The amount of shipping built within the province in each of the ten years 1832 to 1841, was as follows:—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1832	95	7,313	1837	142	12,659
1833	104	9,475	1838	182	16,966
1834	108	8,956	1839	198	19,435
1835	100	4,531	1840	199	31,207
1836	114	9,280	1841	167	23,904

The shipping belonging to the province at the end of 1841 was—

	Vessels.		Tons.	
Sailing vessels—under 50 tons . .	1,181		24,437	
„ above 50 tons . .	615		84,906	
		1,796		109,343
Steam vessels—under 50 tons . .	1		35	
„ above 50 tons . .	2		117	
	3			152
Total . . .		1,799		109,495

The fisheries of Nova Scotia are of the greatest importance to its prosperity, and their produce furnishes the most valuable article of its export trade. The great bulk of the fish taken is cod; but herrings, mackerel, and salmon are also found, and cured for exportation. The value of fish, grain, and lumber, exported from the province in each year from 1832 to 1847 was—

Years.	Fish.	Corn, &c.
	£.	£.
1832	137,744	12,447
1833	149,046	25,652
1834	127,889	12,672
1835	155,801	51,660
1836	157,204	18,980
1837	181,961	11,768
1838	205,840	15,310
1839	233,075	30,180
1840	282,201	69,491
1841	281,037	86,629
1842	223,292	66,345
1843	218,359	10,656
1844	190,387	6,030
1845	204,227	1,815
1846	216,125	24,386
1847	335,472	18,813

The province of Nova Scotia is invaluabl
number and commodious nature of its harbo
the capital of the province, is entered by a
which ends in a sheet of water the area of
and in which 1000 ships can ride in safety.
protected by forts erected on small islands.
the Atlantic coast, is two miles wide at the
miles, and is fourteen miles long. At the
province is St. Mary's Bay, four to ten miles
long. The Annapolis Basin is entered by th
of Fundy, and is one of the most beautiful
tending ten miles parallel to the Bay of F
from one to four miles. The Basin of Mi
of the Bay of Fundy, is entered through a s
within enlarges to from eight to sixteen m
miles to the head of Cobequid Bay. Cumbe
the province from New Brunswick, forms a
harbour. Pictou harbour has a bar at its m
capacious; and there are other smaller harbo
Northumberland Strait, which elsewhere woul

A considerable number of live stock are r
the census of 1827 there were found—

14,074 horses.
127,642 horned cattle.
197,375 sheep.
80,223 swine.

The number of acres in crop in the same
uncultivated land there were 9,668,801 ac
worked in the district of Pictou.

The island of Cape Breton is a depende
which province it is divided by the Gut of Ca

It is bounded on the north and north-west by the Gulf of St. Lawrence, on the south and east by the Atlantic, and on the west by St. George's Bay and Northumberland Strait. Its length from north-east to south-west is about 100 miles, and its greatest breadth is 80 miles. The population, which in 1806 was 2315, in 1816 about 7000, and in 1824 about 14,000, consisted in 1827 of 9435 males, and 9265 females—together 18,700 souls; at this time the island is computed to contain about 27,000 inhabitants.

The custom-house accounts do not furnish an accurate statement of the trade of this island, a great part of its imports being included in the accounts of Nova Scotia. The value not thus included during the eight years 1832 to 1839 was as follows:—

Years.	Imports.	Exports.	Years.	Imports.	Exports.
	£.	£.		£.	£.
1832	18,072	31,891	1836	8,809	34,460
1833	10,324	28,608	1837	7,591	41,337
1834	10,501	22,188	1838	8,350	33,546
1835	11,666	31,039	1839	8,027	42,859

The exports consist principally of fish and coals. Of this mineral there are mines at Sydney, Bridgeport, and Little Bras d'Or. The quantity exported in each of the above years was—

Years.	Tons.	Years.	Tons.
1832	21,855	1836	27,759
1833	15,680	1837	32,701
1834	8,374	1838	23,550
1835	9,955	1839	38,199

Ship-building is carried on in the island. There were built and registered in each of the ten years 1832 to 1841 the following number of vessels:—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1832	18	1,197	1837	17	1,067
1833	22	1,503	1838	27	1,145
1834	19	1,111	1839	25	1,233
1835	17	1,354	1840	40	2,352
1836	23	1,613	1841	23	2,247

There were belonging to the island at the end of 1841—

	Ships.	Tons.
Vessels under 50 tons . . .	22	5,462
„ above 50 „ . . .	18	3,969
Total	40	9,431

Prince Edward's Island, in the Gulf of St. Lawrence, is bounded on the south and the west by Nova Scotia and New Brunswick, on the east by the island of Cape Breton, and on the north by the Gulf of St. Lawrence. It lies between 46° and 47° 10′ north latitude, and between 62° and 65° west longitude. Its extreme length is 140 miles, and its mean breadth is about 15 miles. Its area is 2134 square miles.

This island was discovered by Sebastian settlement was made upon it by the English occupied by the French as a fishing station their possession by the English in 1758, and to this country.

The population in 1806 was 9676; in 16,000; in 1827 it consisted of 23,473 (1 females). In 1841 a census was taken, acco ants were—

	Males.
Under 16 years of age . .	11,580
From 16 to 45 years . . .	9,456
„ 45 „ 60 „ . . .	1,945
Above 60 years of age . .	1,082
Total . . .	24,063

Among this population there were—

Deaf and dumb persons . .	
Blind	
Insane	

The external trade of the island is very sm and exports in each of the years 1832 to 183

Years.	Imports.	Exports.	Years.	I
	£.	£.		
1832	1,015	8,267	1836	
1833	1,693	3,956	1837	
1834	2,339	10,693	1838	
1835	1,174	9,029	1839	

The progress of this island in improvemer extraordinary proceeding of the English G granted very nearly the whole surface by a gr holders of the tickets to which benefits were pay a few shillings per annum for each 10(lands in the proportion of one settler for e years from the date of the grant. These co evaded; the grantees were for the most par the island, and settlers have been unwilling t industry in the improvement of property w their own, while on the neighbouring contine of land to be had in fee simple and on easy t

There are comparatively but few immigr island. Of the 47,033 persons living there i or about two-thirds, who were born in the co t were descended from Scotchmen.

The soil is fertile, and the climate good and healthy; the island is in a great measure free from the fogs which visit the shores of Newfoundland, Cape Breton, and Nova Scotia.

The great bulk of the people are agriculturists and stock farmers. There were on the island in 1841—

9,861 horses;
41,914 neat cattle;
73,643 sheep; and
35,521 swine;
10 breweries and distilleries; 87 grist-mills; 11 carding-mills; and 83 saw-mills.

The number of ships built and registered in the island during each of the ten years from 1832 to 1841 was as follows:—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1832	42	4,094	1837	44	6,715
1833	44	5,000	1838	46	7,099
1834	34	4,315	1839	69	9,986
1835	40	4,888	1840	77	11,098
1836	35	4,347	1841	63	10,797

The number and tonnage of shipping belonging to the island at the end of 1841 were—

	Ships.	Tons.
Under 50 tons . . .	112	3,106
Above 50 tons . . .	80	12,967
Total . . .	192	16,073

The island of Newfoundland, in the Gulf of St. Lawrence, lies between 46° 40′ and 50° 37′ north latitude, and between 52° 40′ and 59° 20° west longitude. Its extreme length from north to south is about 400 miles, and its greatest breadth is about 300 miles. Its area is about 35,000 square miles.

The value of this possession has been confined to the fisheries carried on upon the "banks" in its neighbourhood. We know little or nothing of the interior of the country, the settlements being limited to a few stations on the shores having reference solely to the business connected with the taking and curing of fish. Some attempts at forming such settlements were made between 1585 and 1614; but the first permanent colony was established in 1623 by Lord Baltimore, who proceeded to the island in person. Another colony followed in 1633, under the auspices of Lord Falkland, and in 1654 Sir David Kirk went there with a few settlers, authorized by a grant from the Parliament. Early in the eighteenth century the island was taken by the French, but by the treaty of Utrecht it reverted to England, and has since remained in our possession.

The population in 1806 was 26,505; in 1816 it was 52,672; and in 1824 it had rather diminished, having been 31,746 males and 20,411 females,—together, 52,157. In 1832 it contained 59,280 inhabitants.

In 1836, the latest account, there were in the island 42,462 males, a 32,238 females,—together, 74,705.

The value of the import and export trade of the colony in each ye from 1832 to 1847 was—

Years.	Imports.	Exports.	Years.	Imports.	Exports.
	£.	£.		£.	£.
1832	573,872	594,486	1840	671,154	896,287
1833	595,909	715,098	1841	665,815	908,103
1834	556,087	663,264	1842	650,166	787,166
1835	576,800	737,022	1843	667,739	912,773
1836	579,799	787,099	1844	708,887	853,290
1837	711,155	863,907	1845	654,503	875,151
1838	580,384	727,559	1846	726,747	689,313
1839	624,166	818,110	1847	760,324	806,819

The greater part of the imported articles consist of various kinds provision, clothing, salt, and fishing-tackle; and nearly the whole of t exports consist of fish, fish-oil, and seal-skins.

The shipping that arrived at and left the colony in each year fr 1832 to 1839, and in 1844, was as follows:—

Years.	INWARDS.									
	Great Britain.		British Colonies.		United States.		Foreign Countries.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
1832	265	36,067	388	29,454	56	6,104	149	20,719	858	92,3
1833	251	35,171	417	33,012	73	8,787	151	18,872	892	95,8
1834	271	39,365	351	30,845	52	6,733	226	30,339	900	107,5
1835	211	30,821	341	31,983	50	5,828	249	34,601	851	103,3
1836	186	26,646	313	29,718	39	5,720	262	36,746	800	98,8
1837	191	26,553	419	35,936	22	2,354	293	41,714	925	106,5
1838	138	17,706	262	20,298	24	2,681	393	53,997	817	94,6
1839	163	19,390	356	28,064	48	5,207	294	39,000	861	91,6
1844	181	25,652	502	44,816	123	14,813	324	41,858	1,130	127,1
	OUTWARDS.									
1832	167	12,128	424	28,749	23	2,727	195	24,700	809	68,3
1833	151	18,515	444	41,544	29	3,515	221	27,386	845	90,9
1834	233	16,500	443	24,146	25	2,871	270	41,052	971	84,5
1835	156	20,040	402	46,272	26	3,448	249	32,210	833	101,9
1836	145	18,546	376	42,144	18	2,157	246	32,710	785	95,5
1837	158	17,630	474	50,333	9	1,239	249	32,725	890	101,9
1838	150	16,779	437	49,763	9	732	236	27,521	832	94,7
1839	136	15,286	419	40,217	20	1,962	259	32,830	834	90,2
1844	119	15,787	601	65,498	29	3,500	296	34,314	1,045	119,1

A considerable number of small vessels are built in the island. T number and tonnage so constructed in each of the ten years 183 1841 were as follows:—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1832	34	2,767	1837	25	1,164
1833	35	3,029	1838	31	1,541
1834	26	1,546	1839	17	921
1835	50	2,428	1840	30	1,696
1836	22	1,232	1841	35	1,332

The number of vessels registered in and belonging to the island at the end of 1841 were—

	Ships.	Tons.
Sailing-vessels—under 50 tons	310	10,103
„ above 50 tons	415	34,273
Total . . .	725	44,376

The Hudson's Bay territory is a tract of country extending between 49° and 70° north latitude, and from Cape Charles in Labrador (near 55° west longitude) to the Rocky Mountains and the mouth of the Mackenzie river (in 135° west longitude). This territory is so little known that its area cannot be given, but it is said certainly to exceed 2,000,000 square miles, and probably not to fall much short of 3,000,000 square miles.

The description of this immense tract belongs to the province of the geographer, and would be out of place in this volume. The only purpose to which it is applied is that of hunting-grounds for the Hudson's Bay Company, through whose instrumentality the markets of the world are yearly supplied with the most valuable furs.

The Bermudas, or Somers' Islands, form a numerous group, of which only five are of any importance, viz., St. George, St. David, Long Island, Somerset, and Ireland. They are situated in the North Atlantic, 580 miles east of Cape Hatteras in North America. The western point of the group is in 32° 15′ north latitude, and 64° 50′ west longitude. The area of the inhabited islands is 12,424 acres, or about 20 square miles. Their population in 1806 consisted of 10,000 persons, of whom nearly one-half were slaves; in 1824 the numbers were—

	Males.	Females.	Total.
Whites	1,837	2,751	4,648
Free coloured . .	312	410	722
Slaves	2,620	2,622	5,242
Total . .	4,829	5,783	10,612

In 1839 the population consisted of—

	Males.	Females.	Total.
Whites	1,638	2,428	4,066
Coloured and black	2,086	2,781	4,867
Total . .	3,724	5,209	8,933

The climate is exceedingly healthy, and an increase of the population by natural causes would certainly be experienced. The diminished number of inhabitants must therefore be owing to emigration, which, considering the limited nature of the employments offered in the islands, must be resorted to by the natives.

The value of articles imported into and exported from the Bermudas in each year from 1832 to 1847 was as follows:—

Years.	Imports.	Exports.	Years.	Imports.	Exports.
	£.	£.		£.	£.
1832	102,742	13,784	1840	130,800	32,231
1833	86,145	13,522	1841	148,762	23,196
1834	77,925	8,418	1842	147,783	21,797
1835	100,783	21,353	1843	119,497	14,206
1836	116,067	21,967	1844	131,844	25,143
1837	105,794	25,945	1845	137,715	16,741
1838	113,589	14,899	1846	130,217	18,831
1839	124,884	21,258	1847	142,591	17,451

The imports consist of a great variety of British manufactures, wit some grain and flour, and miscellaneous articles left by vessels puttin in for repairs. The islands afford nothing of their own produce fo exportation except arrow-root, the value of which is small, and ship the building of which was formerly more successfully followed than a present. The number and tonnage of vessels built in each of the year from 1832 to 1839 were as follows:—

Years.	Ships.	Tons.	Years.	Ships.	Tons.
1832	10	804	1836	8	631
1833	3	200	1837	8	514
1834	No return.		1838	8	850
1835	6	393	1839	8	523

The difference between the value of goods imported and *those* exported is provided for by the Government expenditure on account of convicts, about 1000 of whom have for some years been employed in constructing fortifications on the islands.

The shipping that entered and cleared from these islands, in each o the years from 1832 to 1839, and in 1844, was as follows:—

Years.	Great Britain.		British Colonies.		United States.		Foreign Countries.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
INWARDS.										
1832	8	2,052	76	6,502	65	6,995	6	708	155	16,257
1833	8	2,159	76	6,251	57	5,805	4	459	145	14,674
1834	7	1,502	74	5,657	53	5,427	1	51	135	12,637
1835	9	2,233	71	5,312	50	5,098	16	2,658	146	15,301
1836	10	2,616	62	4,690	48	4,697	4	720	124	12,723
1837	8	1,804	53	3,867	45	4,567	16	1,413	122	11,651
1838	11	3,148	51	3,419	47	5,681	16	946	125	13,194
1839	8	1,956	45	3,112	42	4,732	25	2,816	120	12,616
1844	27	9,435	54	3,920	80	10,259	33	2,072	194	25,686
OUTWARDS.										
1832	..	..	102	9,418	48	5,501	13	1,522	163	16,441
1833	2	364	84	7,253	50	5,874	6	646	142	14,137
1834	1	58	83	7,256	49	4,837	9	1,101	142	13,252
1835	10	1,900	81	7,227	43	4,509	14	1,408	148	15,044
1836	9	1,661	68	6,063	49	5,129	..	..	126	12,853
1837	3	552	63	4,879	40	4,063	19	1,507	125	11,001
1838	4	316	61	5,408	47	4,948	22	2,427	134	13,099
1839	3	520	68	5,139	36	3,936	9	607	116	10,202
1844	2	217	81	11,626	95	12,144	18	1,578	196	25,565

CHAPTER VII.

WEST INDIA ISLANDS AND SETTLEMENTS.

General Description—Names of Colonies—Population—Imports and Exports—Trade with the United Kingdom—Shipping—Productions—Slave Trade; its Abolition—Abolition of Slavery—Compensation to Slave-owners—Successful Result of the Measure—General List of the Colonies and Dependencies of England; the Date and Mode of Acquisition—Population—Forms of Government—Trade with the United Kingdom—Proportion which the Colonial Trade bears to the whole Trade of the Kingdom—Colonial Protective System; its injurious consequences.

THE dependencies of England, known under the general title "West Indies," comprise the islands of Antigua, Barbados, Barbuda, Anguilla, Dominica, Grenada and the Grenadines, Montserrat, Nevis, St. Christopher, St. Lucia, St. Vincent, Tobago, Trinidad, Tortola, and the other Virgin Islands and Jamaica; besides which there are the district of British Guiana on the continent of South America, and the settlement of Honduras in the province of Yucutan.

These colonies or plantations differ materially one from the other in their origin and natural features, yet in their relation to the parent country they bear so intimate a resemblance that it will be convenient to class them together, and to describe their trade and productions under one general designation, as indeed is always the case in our custom-house returns.

The different West India colonies now subject to the British crown are—

Name of Colony.	Date of Acquisition.	Name of Colony.	Date of Acquisition.
Antigua	1632	St. Lucia	1803
Barbados	1625	St. Vincent	1763
Barbuda	1632	Tobago	1763
Anguilla	1650	Trinidad	1797
Dominica	1763	Tortola and the Virgin Islands	1666
Grenada	1763	Jamaica	1655
The Grenadines	1763	The Bahama Islands	1629
Montserrat	1632	British Guiana	1803
Nevis	1628	Honduras	1670
St. Christopher	1623		

The geographical position of the islands in the above list is between 10° and 23° 30′ north latitude, and between 59° 30′ and 79° west

longitude; British Guiana lies between 4° and 8° north latitude, an between 57° and 60° west longitude; Honduras lies between 16° 3 and 18° 30′ north latitude, and between 88° and 89° west longitude.

The population of each of these several colonies and settlement according to the latest accounts, is as follows:—

COLONIES.	Date.	White.		Coloured.		Total.		Total.
		Males.	Females.	Males.	Females.	Males.	Females.	
Antigua . . .	1832	1,140	840	15,541	17,891	16,681	18,731	35,41
Barbados . . .	1829	8,049	7,910	40,371	46,275	48,420	54,185	102,60
Barbuda . . .	..	..	..	..	..	..	..	1,50
Anguilla . . .	1824	162	203	1,429	1,872	1,591	2,075	3,66
Dominica . . .	1833	382	338	8,475	9,465	8,857	9,803	18,66
Grenada and the Grenadines .	1837	1,840	1,964	8,271	8,919	10,111	10,883	20,99
Montserrat . .	1836	140	149	3,239	3,591	3,379	3,740	7,11
Nevis	1838	..	..	..	..	3,476	3,958	7,43
St. Christopher .	1838	4,952	5,489	5,739	6,308	10,691	11,791	22,48
St. Lucia . . .	1830	533	450	6,153	7,043	6,686	7,483	14,17
St. Vincent . .	1831	1,301		25,821		..	..	27,12
Tobago . . .	1830	..	..	..	..	5,502	6,246	11,74
Trinidad . . .	1837	2,020	1,601	17,230	18,477	19,250	20,078	39,32
Tortola and the Virgin Islands	1835	..	..	..	..	3,622	4,109	7,73
Jamaica . . .	1824	37,152		166,595	169,658	..	..	373,40
The Bahamas . .	1830	..	..	..	..	11,539	11,509	23,048
Demerara* . .	1832	3,006		71,877		..	..	74,883
Berbice* . . .	1833	431	139	10,914	10,057	11,345	10,196	21,541
Honduras . . .	1839	200	35	4,700	3,000	4,900	3,035	7,93
						Total . . .		820,79

* British Guiana.

The declared value of British and Irish produce and manufactur exported to the British West Indies in each of the years, from 1827 1849, was—

Years.	£.	Years.	£.	Years.	£.
1827	3,583,222	1835	3,187,540	1843	2,892,441
1828	3,289,704	1836	3,786,453	1844	2,451,477
1829	3,612,085	1837	3,456,745	1845	2,783,211
1830	2,838,448	1838	3,393,441	1846	3,253,420
1831	2,581,949	1839	3,986,598	1847	2,102,577
1832	2,439,808	1840	3,574,970	1848	1,431,477
1833	2,597,589	1841	2,504,004	1849	1,821,146
1834	2,680,024	1842	2,591,425		

The value of the produce shipped from these colonies to the Unit Kingdom in each of the years 1832 to 1847, as computed by the coloni custom-houses, was—

Years.	£.	Years.	£.	Years.	£.
1832	5,020,146	1838	6,871,138	1843	4,961,566
1833	5,169,878	1839	5,424,614	1844	5,009,267
1834	6,064,786	1840	5,356,116	1845	5,027,563
1835	5,728,916	1841	4,470,731	1846	4,288,859
1836	6,675,424	1842	4,585,128	1847	5,768,926
1837	5,947,596				

The total value of the imports and exports of each colony in the yea 1832 to 1847, according to the custom-house returns, was as follows:-

COLONIES.	1832		1833		1834	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
	£.	£	£.	£.	£.	£.
igua . . .	148,830	169,244	170,334	183,285	176,076	371,376
bados . .	461,308	285,516	438,679	418,351	454,051	624,685
ninica . .	35,570	141,306	38,421	119,528	36,858	110,362
nada . .	111,605	201,276	114,179	281,130	126,776	267,998
aica . . .	1,593,317	2,814,308	1,519,452	2,489,797	1,589,720	3,148,797
itserrat . .	11,067	21,517	8,065	18,885	11,026	36,523
is . . .	28,686	28,871	28,030	44,729	27,304	61,653
Christopher	71,981	101,148	71,703	102,378	88,214	137,963
Lucia . .	35,958	51,126	34,723	63,510	42,834	78,513
Vincent . .	154,274	255,343	126,763	283,170	138,337	307,251
ago . . .	56,399	118,450	54,731	106,589	50,446	106,773
tola . . .	5,932	33,058	10,006	31,105	4,756	39,985
idad . .	229,697	235,657	287,453	268,446	252,518	380,707
amas . .	73,807	68,156	107,399	76,614	142,021	92,802
nerara . .	486,380	1,386,104	487,229	1,577,615	585,260	1,261,767
bice . . .	86,815	332,933	70,345	258,954	67,772	267,338
Total. .	3,591,626	6,244,013	3,567,512	6,324,086	3,793,969	7,294,493

	1835		1836		1837	
igua . . .	201,339	236,861	191,817	175,808	158,998	73,049
bados . .	505,028	578,739	615,503	636,853	627,047	787,344
ninica . .	50,056	45,624	68,077	78,282	71,330	74,871
nada . .	114,129	204,795	147,315	201,080	130,709	204,822
aica . .	2,018,965	3,094,513	2,108,606	3,315,670	1,956,540	2,827,833
itserrat . .	12,715	19,249	9,219	19,069	9,542	7,775
is . . .	39,094	33,575	32,511	34,885	27,183	12,203
Christopher	110,337	120,141	98,344	145,703	118,271	122,219
Lucia . .	51,807	79,872	60,344	69,040	86,741	74,185
Vincent . .	130,559	326,678	155,522	349,480	178,415	379,686
ago . . .	58,705	104,274	73,947	196,974	69,763	143,828
tola . . .	9,338	23,215	15,225	23,129	10,426	24,729
idad . .	315,850	370,361	469,208	487,731	443,572	469,500
amas . .	125,424	108,928	143,211	88,694	190,113	106,840
nerara . .	615,106	1,455,231	770,839	1,595,137	799,900	1,326,308
bice . . .	96,013	315,936	140,738	499,042	157,483	371,436
Total. .	4,454,465	7,117,992	5,100,426	7,916,577	5,036,093	7,006,628

	1838		1839		1840	
igua . . .	196,959	378,337	233,336	353,709	191,185	443,080
bados . .	717,554	847,989	783,775	686,702	599,139	344,297
ninica . .	50,472	120,021	44,275	87,466	61,004	76,681
nada . . .	118,292	266,277	99,505	201,132	98,059	170,786
aica . . .	1,876,566	3,299,480	2,244,450	2,484,735	2,183,917	2,208,985
itserrat . .	14,655	21,248	9,356	21,312	9,994	24,227
is . . .	32,918	28,896	31,757	52,835	27,005	41,776
Christopher	95,130	180,161	143,867	185,626	134,732	217,403
Lucia . .	60,143	83,535	77,507	76,184	66,078	84,029
Vincent . .	170,006	339,025	189,246	299,325	173,066	202,109
ago . . .	76,283	139,171	72,418	150,557	64,222	118,819
tola . . .	10,540	13,161	6,200	15,029	10,964	12,966
idad . .	408,532	494,199	465,824	358,945	536,609	361,645
amas . .	154,484	81,825	132,906	93,844	123,773	84,099
nerara . .	851,389	1,331,390	1,029,830	1,091,582	844,583	1,555,664
bice . . .	208,095	348,546	178,684	256,122	144,004	332,063
Total. .	5,042,028	7,973,261	5,742,936	6,415,105	5,268,134	6,278,629

COLONIES.	1841		1842		1843	
	Imports.	Exports.	Imports.	Exports.	Imports.	Ex
	£.	£.	£.	£.	£.	
Antigua . . .	201,882	295,343	160,012	267,032	223,379	36
Barbados . .	578,474	410,371	577,860	424,513	619,463	55
Dominica . .	53,198	50,917	47,872	64,357	47,720	5
Grenada. . .	114,505	141,553	84,251	127,535	84,679	13
Jamaica . . .	1,335,234	1,909,744	1,877,252	2,231,112	1,695,556	1,84
Montserrat . .	13,044	28,105	10,297	20,117	12,008	1
Nevis . . .	23,728	17,455	14,379	17,992	17,954	3
St. Christopher	139,775	136,842	109,701	152,613	115,578	11
St. Lucia . .	59,230	99,312	52,135	109,960	49,448	7
St. Vincent . .	138,124	235,198	124,642	229,237	102,208	22
Tobago . . .	59,249	86,300	28,474	83,083	31,927	6
Tortola . . .	7,619	18,968	4,850	13,130	8,700	
Trinidad . .	532,734	473,724	386,158	458,490	429,533	40
Bahamas . .	108,829	92,727	128,060	67,141	105,618	6
Demerara . .	769,565	979,794	601,593	930,749	646,012	79
Berbice . . .	116,656	186,003	69,927	204,956	69,219	19
Total. .	4,251,855	5,162,446	4,277,463	5,402,026	4,257,008	4,96

COLONIES.	1844		1845	
	Imports	Exports.	Imports.	Exports.
	£.	£.	£.	£.
Antigua . . .	237,905	407,946	251,350	295,413
Barbados . . .	594,484	546,799	654,250	561,598
Dominica. . .	56,416	67,183	62,694	70,089
Grenada . . .	89,346	112,792	97,522	113,019
Jamaica . . .	1,476,344	1,609,473	1,559,421	1,851,423
Montserrat . .	7,097	17,812	8,557	15,050
Nevis	17,985	51,565	21,748	49,364
St. Christopher .	135,816	177,145	159,221	194,087
St. Lucia . . .	65,637	101,361	63,052	95,477
St. Vincent . .	134,696	210,299	136,997	189,241
Tobago . . .	43,439	85,946	36,966	83,412
Tortola . . .	5,719	12,214	6,970	15,753
Trinidad . . .	437,411	403,826	449,991	430,144
Bahamas . . .	106,014	86,330	101,033	71,357
Demerara . .	602,028	893,000	742,368	772,539
Berbice . . .	61,955	225,579	88,915	219,597
Total. .	4,072,292	5,009,267	4,441,055	5,027,563

	1846		1847	
Antigua . . .	200,311	182,108	195,846	374,887
Barbados . . .	678,751	512,524	546,272	737,988
Dominica. . .	53,416	72,229	49,914	78,665
Grenada . . .	87,681	123,756	95,270	160,805
Jamaica . . .	1,419,845	1,478,709	1,321,705	1,937,645
Montserrat . .	7,512	7,001	5,634	11,013
Nevis	19,579	40,879	13,481	62,977
St. Christopher .	148,061	149,484	143,779	177,869
St. Lucia . . .	56,338	79,551	57,475	111,889
St. Vincent . .	144,617	225,460	126,434	275,469
Tobago . . .	36,018	66,783	34,856	119,691
Tortola . . .	6,437	8,404	8,352	13,711
Trinidad . . .	494,365	497,317	393,603	512,288
Bahamas . . .	119,325	68,953	101,844	85,525
Demerara . .	801,956	649,025	713,041	880,714
Berbice . . .	81,565	126,676	58,131	227,790
Total. .	4,355,840	4,288,859	3,865,637	5,768,926

The number and tonnage of shipping employed in the trade between the British West Indies and the United Kingdom in each of the twenty-eight years, from 1822 to 1849, were as follows:—

Years.	Inwards.		Outwards.		Years.	Inwards.		Outwards.	
	Ships.	Tons.	Ships.	Tons.		Ships.	Tons.	Ships.	Tons.
1822	839	232,426	743	208,099	1836	900	237,922	892	238,915
1823	861	233,790	842	232,717	1837	855	226,468	913	244,546
1824	899	244,971	848	238,037	1838	878	253,495	894	242,467
1825	872	232,357	801	219,431	1839	748	196,715	848	219,652
1826	891	243,448	907	251,852	1840	697	181,731	856	222,817
1827	872	243,721	906	248,598	1841	677	174,975	805	211,536
1828	1,013	272,800	1,022	270,495	1842	714	191,688	896	261,344
1829	958	263,338	918	252,992	1843	758	206,200	897	253,698
1830	911	253,872	868	240,664	1844	714	195,440	822	231,667
1831	904	249,079	907	249,051	1845	830	220,538	954	263,273
1832	828	229,117	803	226,105	1846	658	183,742	812	227,873
1833	911	248,378	875	241,384	1847	848	243,388	918	268,790
1834	918	246,605	900	246,609	1848	704	199,589	798	237,258
1835	878	235,179	862	232,864	1849	750	205,248	828	240,927

The productions of these colonies are almost exclusively sugar, molasses, rum, coffee, and cocoa, and pimento from Jamaica. The products of the sugar-cane are obtained from all. Coffee is chiefly grown in Jamaica, Dominica, and Guiana; and cocoa, the growth of British colonies, is almost exclusively yielded by Trinidad and Grenada. The quantities of those important articles of commerce imported from our West India colonies into the United Kingdom in each year, from 1827 to 1849, were—

Years.	Sugar.	Molasses.	Rum.	Coffee.	Cocoa.	Pimento.
	Cwts.	Cwts.	Gallons.	lbs.	lbs.	lbs.
1827	3,551,218	332,441	5,620,174	29,419,598	549,688	2,225,943
1828	4,313,636	508,095	6,307,224	29,987,078	454,999	2,247,893
1829	4,152,614	390,626	6,934,759	26,911,785	684,917	3,585,694
1830	3,912,628	249,420	6,752,799	27,460,421	711,923	3,489,318
1831	4,103,800	323,306	7,844,157	20,030,802	1,491,947	1,801,355
1832	3,773,456	553,663	4,713,809	24,673,920	618,215	1,366,183
1833	3,646,204	686,793	5,109,975	19,008,375	2,134,809	4,770,255
1834	3,843,976	650,366	5,112,309	22,081,489	1,360,325	1,389,402
1835	3,524,209	507,495	5,453,317	14,855,470	430,447	2,536,353
1836	3,601,791	526,535	4,868,168	18,903,426	1,612,304	3,230,978
1837	3,306,775	575,657	4,418,349	15,577,888	1,847,145	2,026,129
1838	3,520,676	638,007	4,641,210	17,588,655	2,149,637	892,974
1839	2,824,372	474,307	4,02 ,820	11,485,675	959,641	1,071,511
1840	2,214,764	421,141	3 780 979	12,797,039	2,374,301	999,068
1841	2,151,217	430,221	2 770 161	9,927,689	2,920,298	797,758
1842	2,508,725	471,759	3,823,185	9,49 ,646	2,499,488	1,643,376
1843	2,509,701	605,632	2,803,3 9	8,530,110	1,501,126	2,028,656
1844	2,453,050	579,598	2 506,625	9,2 0,278	3,120,480	234,672
1845	2,853,995	491,083	3 955,064	6, 89,077	3,351,602	2,996,560
1846	2,147,347	477,623	2,826,378	6, 82,527	1,738,848	923,888
1847	3,199,814	531,171	5,259,449	6,763,103	3,026,381	1,358,560
1848	2,704,987	385,484	5,653,840	5,075 128	2,602,309	2,326,576
1849	2,840,531	605,628	4,329,640	3,590,839	3,159,086	2,273,936

It appears from the Custom-house statements already given that a great part of the value of the yearly harvests in these colonies, and

which are shipped to the United Kingdom, an addition to our capital. The balance t ments of stores and manufactures are pro two and three millions sterling per annu proprietors and mortgagees resident in thi

For a long series of years the British Pa to the African slave-trade, and it require on the part of a band of zealous philanth were the venerable Thomas Clarkson an sufficiently to arouse the land to the enor to procure the passing of a law for its al first committee was formed for the purpos information tending to the abolition of th self-constituted body consisted of Clark Sanson, and nine more members of the following year numerous petitions against were presented to Parliament; motion aft subject in the House of Commons, where who seemed to command overwhelming other measure advocated by him, was out cause of humanity; and it was reserved fo ceeded to office on the death of Mr. Pitt Bill for abolishing the African slave-trade sure by giving to it the royal assent was li act of Lord Grenville's administration, th given up to the king on the very same da the law of the land.

It was at that time confidently predicte this measure that it must insure the ruin we not draw from the signal failure of th hope that the further measure of justice abolition of slavery itself throughout the E August, 183[illegible] will in the end prove as lit colonies as was the measure of 1807?

On the 28th of August, 1833, an Act w slavery throughout the British colonies. slave ceased on the 1st of August, 1834; that relation becoming "apprenticed labo been entitled to their services as slaves. was to continue in the case of household s 1838, but in the case of prædial labourer ployed in agriculture, the apprenticeship 1st of August, 1840. So strongly, howeve become convinced of the sinfulness of hol

bondage, that even the modified condition of apprenticeship, although it had taken from the master all the more hateful attributes of ownership, was intolerable to them; and a degree of moral compulsion was used under which the colonial legislatures were induced to anticipate the period of perfect freedom, and the labouring population throughout our West India colonies were admitted to the full rights of citizenship on the 1st of August, 1838.

This glorious act of raising 770,000 human beings from a condition in which they were legally considered as chattels, and could be bought and sold as so many beasts of burden, to a state of equality before the law with their former owners, was bought for them at the price of twenty millions sterling by the British nation, who thus gave unquestionable testimony to their feelings of genuine philanthropy, while they proved their sense of justice by compensating those who would otherwise have suffered individually for the expiation of a national sin.

The number of slaves in respect of whom their owners received compensation by means of this Parliamentary Grant of twenty millions was 770,280, of whom 35,742 belonged to the Cape of Good Hope, 4026 to Bermuda, and 66,613 to Mauritius. The remaining 663,899 were located in the several West India colonies. The number of slaves in each colony, with the average rates of compensation awarded to their former owners, and the amount of money thus distributed to the several colonies, were as follows:—

COLONIES.	Number of Slaves.	Compensation Apportioned.	
		Average Rates.	Total Amount.
		£. s. d.	£.
Antigua	29,121	14 12 3	425,547
Bahamas	10,086	12 14 4	128,296
Barbados	83,150	20 13 8	1,719,980
Dominica	14,175	19 8 9	275,547
Grenada	23,638	26 1 4	616,255
Guiana	82,824	51 17 1	4,294,989
Honduras	1,901	53 6 9	101,399
Jamaica	311,070	19 15 4	6,149,937
Montserrat . . .	6,401	16 3 7	103,556
Nevis	8,815	17 2 7	151,006
St. Christopher . .	19,780	16 13 0	329,393
St. Lucia	13,291	25 3 4	334,495
St. Vincent . . .	22,266	26 10 7	590,779
Tobago.	11,589	20 3 7	233,875
Trinidad	20,657	50 1 1	1,033,992
Virgin Islands . .	5,135	14 2 11	72,638
Total . .	663,899	24 18 11	16,561,684

A large part of this compensation money was applied to the extinction of mortgage-debts owing to merchants in England, and was thus doubly advantageous to the planters, who were thereby free from obligations extremely onerous, and which in various ways intercepted the benefits of ownership.

The different rates of compensation awarded to the slave-owne
the several colonies, and which varied from 12*l.* 14*s.* 4*d.* per hea
the Bahamas to 53*l.* 6*s.* 9*d.* in the colony of Honduras, were pro
tioned to the average sale-value of slaves in the various colonies du
the years between 1822 and 1830, the compensation amounting
small fraction below 45 per cent. of such sale-value. It must no
imagined that the nation having thus paid only that proportion of
value, the former owners were losers of the remaining proportion of 5
cent. During the continuance of slavery, if an owner sold the labou
from his plantation, he had no labour market whence to hire substi
for the cultivation of his estate, and, practically, the value of lar
the sugar colonies resided in the negroes attached to it; but whe
general measure of emancipation was perfected this state of things
altogether changed; the former owners had among them the same
ber of labourers whose services they might engage, the differenc
them being simply this: that with 45 per cent. of the former exchange
value of the labourers in their pockets, and relieved from all necessi
providing for their wants in sickness, infirmity, and old age, they ha
support them by means of daily wages paid to the able-bodied for ser
performed, the rate of which wages must be regulated, as in every o
country, by the supply and the demand. It was a favourite plea
those who were opposed to the abolition of slavery that the expens
the planters in supporting the old and the infant, and the sickly, w
they had the services only of those among the population who
healthy, and of ages during which labour was practicable, amounte
at least as much as the wages they would have to pay if the institu
of slavery were abolished; and if there were any true foundation for
a plea, unquestionably the law which, in placing them in those alt
circumstances, provided the employers with so large a fund ou
which to pay their labourers, bestowed upon the former a very imp
ant boon.

It could not reasonably be expected that a great social revolu
such as the act of emancipation brought about in these colonies, w
pass unaccompanied by some inconvenience, and that time would
be required in order to the right adjustment of things between
different classes under such altered circumstances. The inconvenie
which have arisen proved, however, much less formidable than the
sanguine friends to the measure of emancipation ventured to exp
and whatever those inconveniences were, they are fast disappea
The conduct of the emancipated negroes has been most exemp
The heaviest charge brought against them is that of demanding e
bitant rates of wages, a charge which calls for no word of refuta
since it must be out of their power to enforce it, or to insist upon
payment beyond that which circumstances render equitable. It i

more in their power than it is in the power of the farm-labourer or the hand-loom weaver in England to fix the rate of wages.

The very great difference in the sale-value of slaves observable in the different colonies previous to emancipation was chiefly the result of a law passed for the registration of slaves, and which forbade their transfer from one colony to another,—a measure framed in a beneficent spirit, but the wisdom of which was very questionable. In the Bahamas, where the slave population was redundant, labour was necessarily cheap, and the value of those by whom it must be performed was low. In Guiana, on the other hand, and in Trinidad, where there was an abundance of fertile land to be reclaimed, the number of labourers was quite inadequate, and their value proportionally high. There would have been great advantage to the owners, and, under proper regulations, no hardship upon the negroes, to have removed them from places where their labour was not needed to colonies where it could be profitably employed. Since the measure of freedom has been consummated, such changes have taken place to a great extent, and with mutual advantage to both classes.

The inhabitants of Antigua, in which island there was an abundance of labourers, so that their average sale-value between 1822 and 1830 was only 32*l.* 12*s.* 10*d.* per head, quickly perceived the advantages they might draw from the measure of 1833, and by an act of the island legislature granted immediate emancipation to their slaves, without subjecting them to the intermediate step of apprenticeship. This island is most of all the West India colonies dependent upon the seasons for the abundance of its crops, since there is not in the whole of its area a stream or spring of water to be found. With this fact in view it will be seen from the following figures that its harvests have not fallen short by reason of this act of its legislature.

The quantities of sugar, molasses, and rum imported into the United Kingdom from Antigua in each of the eighteen years, from 1832 to 1849, were as follows:—

Years.	Sugar.	Molasses.	Rum.	Years.	Sugar.	Molasses.	Rum.
	Cwts.	Cwts.	Gallons.		Cwts.	Cwts.	Gallons.
1832	143,336	57,889	29,173	1841	144,103	75,551	14,906
1833	129,519	67,181	34,932	1842	147,414	75,124	48,078
1834	257,177	87,882	71,445	1843	173,401	79,962	2,032
1835	174,818	75,985	67,051	1844	225,150	104,243	22,513
1836	135,482	54,370	7,731	1845	210,013	100,934	16,120
1837	62,170	26,993	11,538	1846	102,644	46,205	4,110
1838	203,043	97,614	29,171	1847	240,259	105,683	60,334
1839	222,680	104,034	55,958	1848	161,891	63,287	40,958
1840	203,071	96,117	75,592	1849	188,986	90,003	42,764

The importance to the United Kingdom of the trade which it carries on with its colonies and dependencies in the four quarters of the globe, when compared with that which it carries on with the whole world,

including those colonies, will be seen from the following statement wherein is shown the real value of the products of British industry exported to the world at large, and of the part exported to our colonies, together with the number and tonnage of the shipping employed in prosecuting the trade, during each of the years from 1832 to 1849.

DECLARED VALUE OF BRITISH MANUFACTURES EXPORTED.

Years.	To all the World.	To British Colonies.	Years.	To all the World.	To British Colonies.
	£.	£.		£.	£.
1832	36,450,594	10,140,979	1841	51,634,623	15,153,[illegible]
1833	39,667,347	10,300,452	1842	47,381,023	13,361,[illegible]
1834	42,649,191	9,521,555	1843	52,278,449	15,051,[illegible]
1835	47,372,270	11,175,746	1844	58,789,292	16,506,[illegible]
1836	53,368,572	14,079,642	1845	60,111,082	16,857,[illegible]
1837	42,070,744	12,633,660	1846	57,786,876	16,959,[illegible]
1838	50,060,970	13,581,850	1847	58,842,377	14,913,[illegible]
1839	53,233,580	16,279,108	1848	52,843,445	12,834,[illegible]
1840	51,406,430	17,378,550	1849	63,596,025	15,712,[illegible]

NUMBER AND TONNAGE OF SHIPPING.

Years.	To all the World.				To British Colonies.			
	Inwards.		Outwards.		Inwards.		Outwards	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	T[illegible]
1832	17,918	2,825,959	17,683	2,880,492	5,442	1,009,317	5,423	1,02[illegible]
1833	18,624	2,945,809	18,516	3,002,875	5,440	1,045,514	5,466	1,01[illegible]
1834	19,797	3,132,168	19,462	3,149,152	5,813	1,081,277	5,685	1,08[illegible]
1835	20,300	3,300,724	19,995	3,325,211	6,064	1,200,933	5,785	1,15[illegible]
1836	21,478	3,494,372	21,255	3,566,697	5,829	1,179,381	5,714	1,17[illegible]
1837	22,498	3,623,106	22,028	3,583,965	6,051	1,220,827	5,707	1,13[illegible]
1838	24,798	3,997,053	24,427	4,039,039	6,334	1,269,391	5,954	1,28[illegible]
1839	27,961	4,433,015	27,764	4,494,707	6,578	1,334,412	6,190	1,28[illegible]
1840	28,081	4,657,705	28,073	4,781,872	6,825	1,425,172	6,663	1,49[illegible]
1841	28,052	4,652,376	28,250	4,766,171	6,868	1,534,890	6,696	1,52[illegible]
1842	27,041	4,500,028	27,160	4,627,446	6,186	1,228,052	5,672	1,22[illegible]
1843	28,041	4,847,206	28,043	4,977,266	6,701	1,482,341	6,546	1,49[illegible]
1844	24,205	5,049,601	23,604	5,247,168	6,465	1,476,262	6,531	1,57[illegible]
1845	32,652	6,045,718	32,527	6,031,587	7,346	2,035,075	6,340	1,81[illegible]
1846	33,821	6,101,015	34,402	6,314,571	6,266	1,782,291	6,324	1,83[illegible]
1847	38,806	7,196,033	37,925	7,083,163	6,455	1,827,606	6,211	1,78[illegible]
1848	34,883	6,515,945	34,822	6,780,681	5,902	1,680,508	5,735	1,65[illegible]
1849	37,072	6,919,900	37,603	7,084,488	5,929	1,691,447	5,684	1,62[illegible]

The centesimal proportions into which our foreign and colonial are divisible during the above years are—

Years.	Merchandise.		Shipping.		Years.	Merchandise.		Shipping	
	Foreign.	Colonial.	Foreign.	Colonial.		Foreign.	Colonial.	Foreign.	Col[illegible]
1832	72·18	27·82	64·41	35·59	1841	70·66	29·34	67·46	3[illegible]
1833	73·81	26·19	65·30	34·70	1842	71·80	28·20	73·09	26
1834	77·14	22·86	65·57	34·43	1843	71·21	28·79	69·71	30
1835	76·41	23·59	64·54	35·46	1844	71·83	28·17	70·49	29
1836	73·62	26·38	66·72	33·28	1845	71·96	28·04	68·10	31
1837	69·98	30·02	67·25	32·75	1846	70·65	29·35	70·89	29
1838	72·87	27·13	68·46	31·54	1847	74·66	25·34	74·69	25
1839	69·42	30·58	70·64	29·36	1848	76·57	23·43	74·88	25
1840	66·20	33·80	69·06	30·94	1849	75·30	24·70	76·29	23

The following statement (p. 810) exhibits at one view the names of our colonial possessions and dependencies, with the exception of our Indian empire, in every quarter of the globe; the form of government established in each; and its population in the latest year for which the accounts are at present accessible.

Occasion is sometimes taken by the advocates of a protective system to point out the actual and comparative magnitude of our colonial trade, in proof of the practical wisdom of their doctrine. The chief productions of our colonies have hitherto been favoured in the home market by means of differential duties; and it is affirmed that by this means we carry on a larger export trade than we should do if a preference were not thus given to a part of our customers; an assertion which it would be difficult to prove.

Let us, in order to test the wisdom of this system of preferences, take what will be considered the most important article of colonial production, sugar, and inquire shortly what has been the effect to the kingdom generally, and to the sugar colonies themselves, of the virtual monopoly of the home market that was given to them by our tariff.

First, we were made to pay for the sugar consumed in the United Kingdom more than we needed to pay by an amount exceeding the value of all the goods which we manufactured for the West India colonies; it will hardly be said that this was a profitable trade for us, whatever it might be for the colonies. It might be some consolation to us to know that the excessive price which we thus paid benefited in a proportionate degree those to whom it was paid. But was this so? If the millions of money for which we thus taxed ourselves did go to swell the profits of the planters, how was it that this undue rate did not stimulate production, an effect which excessive profits never fail to have? It is neither wise, reasonable, nor just, that the people of England should, under any circumstances, be thus heavily taxed for the benefit of any class of their fellow-subjects, however respectable; but when we see that, notwithstanding the heavy burden we thus took upon ourselves, the planters were continually lamenting over their ruined condition, what words can we find adequately to describe our folly?

Let us suppose that the differential duty upon sugar were wholly abolished, and that we no longer had to pay a monopoly price for that which we use, and it is certain that our consumption must very greatly increase. To supply our wants we must then have recourse to other markets, and in payment for our importations must send to the producers that alone which we have to offer, the products of our industry, our manufactures. The people of England would clearly be gainers by this change, since they would either have more sugar in return for an equal amount of labour, or they would retain more of the products of their toil to exchange elsewhere for other conveniences or luxuries.

A Statement of the Date and Mode of Acquisition, the Form of Government, and the Popu according to the latest Census, of each Colony or Foreign Possession of the British Crow

Name of Colony.	Date and Mode of its Acquisition, whether by Capture, by Cession, or by Settlement.		Population according to the latest Census or Return.		Form of Governm whether having Leg Assemblies, or be governed directly by from the Home Governme
EUROPE: –					
Gibraltar	Capture	1704	1834	15,008	Under Home G ment.
Malta and Gozo	Ditto	1800	1839	121,928	Ditto.
Ionian Islands	Cession	1814	1840	223,349	Legislative bodi
Heligoland	Ditto	1814	About 2,000		Under Home G ment.
ASIA:—					
Ceylon	Capitulation	1796	1835	1,241,825	Ditto.
AUSTRALASIA: –					
New South Wales	Settlement	1787	1848	220,407	Governor and lative Council.
Van Diemen's Land	Ditto	1803	1848	70,064	Ditto.
Western Australia	Ditto	1829	1848	4,460	Ditto.
South Australia	Ditto	1836	1840	17,366	Ditto.
New Zealand	Ditto	1839	..	Unknown.	
AFRICA:—					
Mauritius	Capitulation	1810	1849	170,881	Under Home Go ment.
Cape of Good Hope	Ditto	1806	1849	175,540	Ditto.
Sierra Leone	Settlement	1787	1844	44,935	Ditto, & Executi Legislative Co
Gambia	Ditto	1631	1839	5,086	Home Governm
Gold Coast	Ditto	1661	..	..	Ditto.
Fernando Po	Ditto	1827	..	..	Ditto.
AMERICA:—					
Lower Canada	Capitulation and Cession	1759 1763	1844	691,193	Legislative bodi
Upper Canada			1844	486,055	Ditto.
New Brunswick	Settlement	Soon after their discovery in 1497	1840	156,162	Ditto.
Nova Scotia	Ditto		1838	178,237	Ditto.
Cape Breton	Ditto				Ditto.
Prince Edward's Island	Ditto		1841	47,033	Ditto.
Newfoundland	Ditto		1836	74,705	Ditto.
Antigua	Ditto	1632	1832	35,412	Ditto.
Barbados	Ditto	1605	1829	102,605	Ditto.
Dominica	Cession	1763	1833	18,660	Ditto.
Grenada	Ditto	1763	1837	20,994	Ditto.
Jamaica	Capitulation	1655	1824	373,405	Ditto.
Montserrat	Settlement	1632	1836	7,119	Ditto.
Nevis	Ditto	1628	1838	7,434	Ditto.
St. Christopher	Ditto	1623	1838	22,482	Ditto.
St. Lucia	Capitulation	1803	1834	14,179	Home Governme
St. Vincent	Cession	1763	1831	27,122	Legislative bodi
Tobago	Ditto	1763	1839	11,748	Ditto.
Virgin Islands	Settlement	1665	1835	7,731	Ditto.
Anguilla	Ditto	1650	1824	3,666	Ditto.
Trinidad	Capitulation	1797	1837	39,328	Home Governme
British Guiana	Ditto	1803	1833	96,424	Ditto, and Legis Council.
Bahamas	Settlement	1629	1839	23,048	Legislative bodi
Bermudas	Ditto	160.	1839	8,9[illegible]	Ditto.
Honduras	Cession	1670	1839	7,385	Home Governmen Local Magistra

Let us, secondly, inquire what the effect would be to the English sugar colonists if we thus placed them upon a footing of equality with the Brazils and Cuba. They would possibly grow less sugar, although that is very doubtful, since we might experience in this case, as in most other cases is experienced, the beneficial effect of competition in stimulating industry and in lessening the cost of production. But suppose this result were to happen, it could only be that they found some other employment for their land and labour, that would be more beneficial, and this would be no hardship to them. Does any one suppose that the land in those prolific settlements would be left waste, or that the labourers would live in idleness?

It cannot be necessary to pursue further an inquiry which has been so frequently discussed in these pages. During the very few years that have elapsed since the first edition of this work was offered to the notice of the public, the cause of commercial freedom, which is the cause of human progress, has made more rapid strides than its most sanguine disciple then dared to expect. The system of restrictions and preferences so stoutly advocated and maintained, and in support of which such signal party triumphs have been achieved, at length is drawing to its end. The hands even to which it looked for support have assisted towards its downfall, and, like all falling bodies, its descent will become more and more rapid until it shall cease to have existence.*

* Written in 1842.

ANALYTICAL INDEX.

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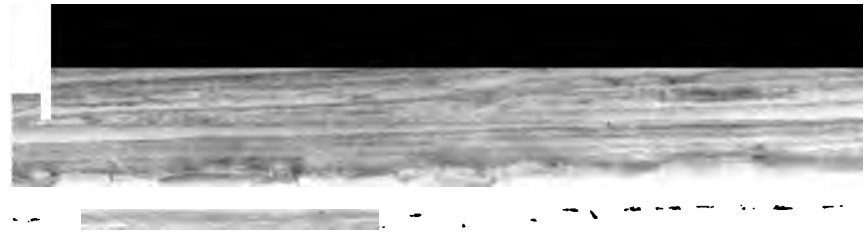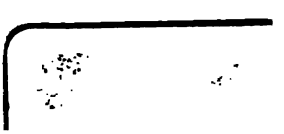
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